



EXAMINATION OF THE ROLE OF LANDSCAPE IN ENHANCING THE LEGIBILITY OF THE URBAN SPACE

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LIST OF CONTENTS

Acknowledgement
List of illustrations
Introduction

CHAPTER – 01 - URBAN SPACE AND RESPONSIVENESS OF THE URBAN ENVIRONMENT

1.1.	- What is an urban space?	01
1.1.1.	- space	01
1.1.2.	- Different attitudes towards urban space	02
1.1.3.	- Formation of the urban space	04
	Socially	
	Physically	
1.2.	- Urban space as place making	06
1.3.	- Elements of the urban spaces in built environment	11
	Urban squares/ streetscapes/ monumental spaces	
	urban parks & open spaces	
1.4.	- urban space as public gathering space	17
1.5.	- Responsiveness of the urban environment	18
	Permeability/ Variety/ Robustness/ visual	
	appropriateness/Richness Personalization/ Legibility	
1.6.	- Chapter Conclusion	20

CHAPTER – 02 - LEGIBILITY OF THE URBAN SPACE

2.1.	- Role of the image of legibility	21
2.2.	- Involvement of constituents to legible the urban Space	22
2.2.1.	- Identity	23
	User	
	Physical setting/ enclosure	
2.2.2.	- Visual significance	25
2.2.3.	- Psychological implication	25
2.3.	- Key physical elements of legibility	26
	Paths/ Nodes/ districts/ edges/ landmarks	
2.4.	- Importance of legibility in urban space	32
2.5.	- Chapter conclusion	33

CHAPTER – 03	- THE ROLE OF LANDSCAPE IN URBAN SPACE	
3.1.	- Components of landscape. Water/ trees/ paving and steps/ street furniture/signage etc. as landscape components	34
3.2.	- Elements and principles in landscape design.	43
3.3.	- Different approaches in landscape to enhance the Legibility Enhances Physical compatibility Beautification	49
3.4.	- The role of landscape in urban spaces to create the Legibility	55
	3.4.1. - urban squares	55
	3.4.2. - streetscape	60
	3.4.3. - Urban open space	64
	3.4.4. - Monumental space	68
3.5.	- Chapter Conclusion	70

CHAPTER – 04	- STUDY OF THE ROLE OF LANDSCAPE IN ENHANCING OF THE LEGIBILITY OF THE URBAN SPACE	
4.1.	- Basis for the selection of Case studies	71
4.2.	- Streetscapes	72
	4.2.1. - Baudhloka mawatha - Colombo	72
	4.2.2. - Nawam Mawatha	79
4.3.	- Urban open space	85
	4.3.1. - Galle face green – Colombo	85
4.4.	- Monumental spaces	91
	4.4.1. - Independence square premises	91
	4.4.2. - New parliament premises – Sri Jayawardanapura, Kotte	96
Conclusion		101
Bibliography		103

LIST OF ILLUSTRATIONS

Figures		Page
Fig: 01	pace with demarcations, Wall planes and overhead plan	1
Fig: 02	volumes of the space, the length, breadth and height	1
Fig: 03	Street as a space, "Space with physical dimensions" Space demarcate with wall planes which are building enclosure and overhead plane which is sky.	2
Fig: 04	Space between buildings and roads	2
Fig: 05	Space between buildings An urban space was created to open up views and improve access to Westminster Roman Catholic Cathedral	2
Fig: 06	Space between buildings. External space as urban space	2
Fig: 07	Buildings are isolated objects in the context	3
Fig: 08	In-between space with Social activities	3
Fig: 09	Physical enclosure. A great square reaches out into the surrounding neighborhood, like Piazza Maggiore in Bologna, Italy.	4
Fig: 10	Physical enclosure and Social behavior. Ground floor retail rings the edge of this square in Verona, Italy.	4
Fig: 11	living environment. Recreation, enjoying, relaxing and leisure activities within the public open space	4
Fig: 12	sharing space for various activities. Traveling to work, selling foods, eating etc.	5
Fig: 13	public and private social activities happening along built front Emphasize the image of the streetscape	5
Fig: 14	Physical enclosure and Social behavior in the street. MAIN STREET FACADES IN DENMARK 1990.	5
Fig: 15	Place making	6
Fig: 16	Relationship between men and space	7
Fig: 17	fast moving, dynamic space with multiplicity of identities STATE OF DANISH URBAN SPACE.	7

Fig: 18	Surround building enclosure make a barrier to enhance the openness and relationship between men make the place. THE PIAZZA DEL CAMPO IN SIENNA, ITALY TOPS OUR LIST OF THE WORLD'S BEST SQUARE	7
Fig: 19	Public space. street activities in either side	8
Fig: 20	Public moving space. Street activities happening between building enclosure in either side	8
Fig: 21	Community gathering around the tree.	9
Fig: 22	Temple was the center of social interaction	9
Fig: 23	Building wall plane act as a enclosure op the place	9
Fig: 24	Continuity makes spaces meet, binds together and creates a harmonious rhythmic movement of spaces from one to the other	10
Fig: 25	series of spaces are connected together with activities and strengthen the continuity	10
Fig: 26	A popular square in Copenhagen, Denmark. Center - A fountain was used to give the square a strong image:	11
Fig: 27	The holiday market in New York's Union Square.	12
Fig: 28	The Piazza del Campidoglio. Elliptical star patterned paving is the typical feature of the node where the church has become an object with grate importance. It has an irregular geometric form with a sense of enclosure while it is provided with and entry and exit points	12
Fig: 29	Long and wide staircase with wide treads	12
Fig: 30	Social gathering around the structural element within the space	12
Fig: 31	Venice-st-marks-square	13
Fig: 32	St Peter's Square - the Vatican, Rome – Italy	13
Fig: 33	Narrow streetscape with balconies and pavements	14
Fig: 34	recessions and jutting out of wall planes break the continuous corridor spaces or lobbies.	14

Fig: 35	"Urban Street as a social asset". Street activities carried out the character and meaning of the streetscape due to social landscape and enhance the dynamic character of the space	15
Fig: 36	"Madison is the one street in that connects Elliott Bay to Lake Washington. Tree lines are along the vehicular street. Those are make shadiness for the pedestrians	15
Fig: 37	Greenwich Park. Character of the park	16
Fig: 38	urban open green space.A sense of enlarged freedom	16
Fig: 39	The pedestrian street full of people with different activities. Moving, chanting	17
Fig: 40	The pedestrian zone in central Copenhagen remains Urban space act as a public space	17
Fig: 41	Permeability	18
Fig: 42	Robustness.Used for many different purposes	18
Fig: 43	Visual appropriateness	19
Fig: 44	Legibility. Old and new	19
Fig: 45	Compacted urban environment	21
Fig: 46	Toronto city. Compacted urban environment	21
Fig: 47	Symbolic physical features. Man makes communication with them	22
Fig: 48	china town – street Full of signs and boards to read and find the space	22
Fig: 49	social behavior in the street	24
Fig: 50	physical enclosure define the space. Street in Brugge, Belgium places comfortably shared by transit, bicyclists, pedestrians, and cars	24
Fig: 51	Emotional perception of the space. Bring about calmness, stillness trough the space	26
Fig: 52	Narrow pathway with building enclosure	27
Fig: 53	Paris city - major focal point. Enhance Paths and major nodal point	28
Fig: 54	St. Peter's square.Enhance Paths and major nodal point. Urban Square as node and it can regular or irregular in their physical form and it provide high degree of enclosure while making the nodes strong in appearance.	28

Fig: 55	Piazza San Marco with the Basilica, by Canaletto, 1730 World famous public square	29
Fig: 56	Piazza San Marco with the Basilica. These famous squares act as the major nodal points in the city center.	29
Fig: 57	Venice water canal. Water's edge has strongly defined the boundary between the water body and built area. Its continuity, visual prominence and depth have made it strong as a seam.	30
Fig: 58	Boundary/ edge. Buildings as elements that form the edge to the city	31
Fig: 59	Marcus-square- campanile Land mark. Historical importance and location have established it as a memorable landmark of the city.	31
Fig: 60	Nature.	34
Fig: 61	One of the splash fountains in operation, running at full height	34
Fig: 62	Water feature	34
Fig: 63	Reach out and touch. Gather around the water feature	35
Fig: 64	Children at-water play	35
Fig: 65	reach out and touch. Gather around the water feature	35
Fig: 66	Child at-water play	35
Fig: 67	the sound of water	35
Fig: 68	Natural environment. Full of colorful trees and water body	36
Fig: 69	Trees and plants provide people to a comfortable and safe place to live and livable breathing space	37
Fig: 70	large trees provide shady environment for people and make livable space	37
Fig: 71	Making built-in features. "sittable" give people the freedom to sit up front, in the back, to the side, in the sun, or out of it. This means designing ledges parapets, and flat surfaces to do as seating, tables, and shelves.	38
Fig: 72	type and colors of paving quality enhance the exclusivity of the space. Century square	38
Fig: 73	step space and it is just right for sitting, eating, and sunbathing.	38
Fig: 74	Pioneer Courthouse Square, Portland	38
Fig: 75	People will most likely sit where pedestrian flows bisect a sittable place. And it is not so perverse of them. It is by choice that they do.	38

Fig: 76	steps provide level changes and people has used those steps unconsciously and make dynamic liable space. It implies direct relationship between the person and provide comfortable feeling	39
Fig: 77	The distribution of a linear pattern on the floor, the color and texture used, increases the monotony of the large square	39
Fig: 78	street furniture (sitting benches) create meeting places and creating friendly spaces	40
Fig: 79	Circular benches provide a comfortable place to sit in Rockefeller Center, New York City.	40
Fig: 80	Victoria square. Specify the space demarcations using elemental railing fence	40
Fig: 81	bus stop, light posts, benches shape the space	41
Fig: 82	bus stop, light posts, benches define livable space	41
Fig: 83	building seats with plantation, light posts, elemental posts define the boundary of the street	41
Fig: 84	Signage performs multiple functions	42
Fig: 85	Serve of information to easy communicate	42
Fig: 86	Information Kiosks/Bulletin Boards	42
Fig: 87	color of the trees	43
Fig: 88	line and form of trees define the edge	44
Fig: 89	form, shape and structure	44
Fig: 90	Line of trees, type of trees, texture, scale, proportion and paving pattern strengthen the character of the space	45
Fig: 91	symmetric balancing of color line of trees, type of trees, texture, scale, proportion and green grass bed strengthen the character of the space	46
Fig: 92	Balance and focalization	47
Fig: 93	Rhythm.	48
Fig: 94	structural landmark enhance the focalization	48
Fig: 95	Tree planted street, vehicular moment directed towards to the building. Line of trees focus eye towards.	49
Fig: 96	pedestrian amenities such as benches, trash receptacles, and shade trees	50
Fig: 97	Jewel of a city in Georgia, is a wholly formal grid of forested squares and tree lined open spaces.	51

Fig: 98	enhance the physical compatibility using the same type of line of trees balancing along the street and alleyways and emphasize the physical form and streets between the physical form	51
Fig: 99	enhance the physical compatibility due to vast open space in the middle of the congested physical structure. Central park at New York	52
Fig: 100	Enhance the visual appearance of the city Current state of Dotonbori River	53
Fig: 101	beautification enhances through the landscape elements and increases the monumentality quality	53
Fig: 102	In Portland, Oregon, traffic calming has been undertaken in. Paving and flower pots increase beauty of the street and the space.	54
Fig: 103	Beautification Create aesthetically pleasing image in the urban situation	54
Fig: 104	front of physical enclosure and balconies compatible with flower pots, trees and other landscape features	54
Fig: 105	Square in Giron, Colombia, South America	56
Fig: 106	Square feature amenities that make it comfortable for people to use. A bench or waste receptacle in just the right location can make a big difference in how people choose to use a place.	56
Fig: 107	A short pedestrian crossing at Plaza Santa Ana in Madrid, Spain.	57
Fig: 108	Water features and different kind of steps play the major role in the square	57
Fig: 109	Spanish steps Rome, 1721-25	58
Fig: 110	This flight of steps enhance the exclusivity of the space.	58
Fig: 111	Trafalgar square. Historical identity.	58
Fig: 112	Rhythm of steps and between them has ramps. (Change of levels)	59

Fig: 113	straight forward, freestanding trees represent directional quality in traffic roots and it enhances the speeding	61
Fig: 114	either side tree lines that heavy foliage with overhead canopy emphasize calm and quiet traffic movement. And emphasize the specialty of the root. Thus can say landscape make vital contribution to enhance the legibility of the street	61
Fig: 115	Bicycles are the preferred mode of transport around Lucas's tree-lined medieval walls. Tuscany, Italy Calmness and relaxing quality enhance from the line of trees on either side. It act as enclosure plane in the street	62
Fig: 116	Las Vegas has recently used a tent to create an environment covering Main Street	62
Fig: 117	Tent structures along the narrow pathway. It may be temporary structures for a moment.	62
Fig: 118	Nodal junction with landscape design. It creates aesthetically pleasing environment	63
Fig: 119	Logan Circle's. Nodal junction with landscape design. It creates aesthetically pleasing environment.	63
Fig: 120	Manchester City Center, UK Signs and boards communicate with city dwellers. It creates the city image	63
Fig: 121	Hesketh Park at Britain Park periphery bounded with the physical congested	64
Fig: 122	decorative paving enhance the stillness and line of trees make a central focus	64
Fig: 123	The Gates seemed like a golden river appearing and disappearing through the bare branches of the trees and highlighting the shape of the meandering footpaths.	65
Fig: 124	whole area of the central park with surrounding congested physical structure	65
Fig: 125	people work through the creative footpath. It directed towards. There physical structure clearly visible in the surround.	66
Fig: 126	Central park at New York. Park with green meadow.	66
Fig: 127	Show the direction clearly where to go. Clear structure enhances the clear legibility of the space.	67
Fig: 128	Show the direction clearly where to go	67



Fig: 129	principles of line, balance, scale, type and focalization of the landscape show the direction clearly. (Central mall park – New York)	67
Fig: 130	line, balance, focalization, scale enhance through the differentiation of landscape. Contribution of Water, trees, paving pattern can see clearly.	68
Fig: 131	Clear view of the Taj Mahal with grate landscape.	68
Fig: 132	Sydney Opera house with surrounding water body	69
Fig: 133	Broadway and promenade with sitting arrangements and linear light posts and rough textural decorative paving.	69
Fig: 134	Thummulla Junction with Buddha stature	72
Fig: 135	Buddha statue in thummulla junction	72
Fig: 136	Bauddhloka Mawatha with line of trees in either side and enhance the spirituality quality.	73
Fig: 137	Replica of Aukana Buddha statue	73
Fig: 138	Anglicant Cathedral with natural planting fence.	74
Fig: 139	Sri ekalankara Dhamma Mandiraya	74
Fig: 140	Chiselled "Buddha statue of Samastha Lanka Dharma Sabawa.	74
Fig: 141	Bannaranayaka international memorial sudden break line of trees for moment and create vast openness with clear image of the building.	75
Fig: 142	Chinese embassy which is next to Replica of Aukana Buddha statue break the quality, character of the street.	76
Fig: 143	kannaththa Junction.	76
Fig: 144	this large canopy tree act as a symbolic element of the space. It enhances the importance of the space in the other and it shows the direction which way to go.	77
Fig: 145	View of D.S. Sennanayake Vidiya.	77
Fig: 146	The Beira Lake is one of the most distinctive landmark in the urban city of Colombo.	79
Fig: 147	Peraha Mawatha with full of foliages of canopy trees. Around the lake well commercialized and it enhance through the quantity of vehicular moment in the road.	80
Fig: 148	Single tree symbolize the turning point of the way.	80
Fig: 149	Streetscape defines with the foliages of canopy trees and enhances the main significant character of the space	80
Fig: 150	View of the Nawam Mawatha from Semamalakaya	81

Fig: 151	High rise building, Semamalakaya with landscape. It makes demarcation line between commercial activity and religious activity.	81
Fig: 152	small elemental features, disciplinary paving enhance the exclusivity, richness of the place.	82
Fig: 153	small elemental features, disciplinary paving and level change make a clear view of the image	82
Fig: 154	through the tree landscape enhance the gloominess, calmness and make pedestrian friendly environment	82
Fig: 155	Turning circles show the direction way to go.	83
Fig: 156	straight line of palm trees demarcates the edge of the commercial space and emphasizes the discipline of the whole streetscape	83
Fig: 157	Physical compatibility. Outer wall which is enclosures of Physical structures define the space	85
Fig: 158	One of spatial demarcation object can see at a distance. Vast volume of the space with different social behaviors	86
Fig: 159	linear setting of the space full of social activities in the elegant vast open space. It enriches the physical structure visible in background	86
Fig: 160	different social groups and different activities. Urban dwellers gather to relax besides the water enjoy the scenic view of the sea	87
Fig: 161	Esplanade act as arena with dominant actors, actresses with background features, elements, lighting levels and sounds. Steps and different levels	88
Fig: 162	Night mood of the Galle face. Lighting enriches the space.	88
Fig: 163	Straight line of palm trees enhances the discipline of the place and further enhances the degree of exclusiveness in the place	89
Fig: 164	Exclusivity of the place emphasize from the simple landscape.	89
Fig: 165	Colorful elemental panels define the edge.	90
Fig: 166	spatial structure of the place.	90
Fig: 167	Same type, same scale of line of Villo trees placed in equal distance and makes a clear focalized visual and physical axis towards to the monumental space.	91
Fig: 168	independence square with Prime Minister Mr. D.S.Sennanayaka.	92
Fig: 169	colonnade structure have risen on the Stone chiseled podium	92

Fig: 170	Central focalized feature that water pond, statue and figures of lions in four directions.	93
Fig: 171	Central focalized feature that water pond, statue and Figures of lions in four directions and Rhythmic form of small scale plantation small scale plantation	93
Fig: 172	Place animate and alive with the social structure	94
Fig: 173	Perspective through the colonnaded structure	94
Fig: 174	Arial view of independence square, surrounding physical setting.	95
Fig: 175	Elegant picture, that form and space and spatial structure of the main object, that the parliamentary space	96
Fig: 176	Section through the elegant space. View from the vast openness of esplanade	96
Fig: 177	parliament view through the vast openness of esplanade. Social relationship and behavior of the space.	97
Fig: 178	form of the monumental space.	97
Fig: 179	Rhythm and scale of the built form in monumental space.	98
Fig: 180	There vast openness of esplanade that well scatted turfed green land with social behaviors.	99
Fig: 181	Impression of water, and green environment	99
Fig: 182	within the monumental space. Level changes shown in using correct landscape method with well proportionate plantation.	99
Fig: 183	Grate view of the national symbolical monumental space emphasizing there identity with there elegant natural setting, contrasting from the urban city environment	100

INTRODUCTION

Observation and Need of the study

Primitive man who is tie with nature was stronger than modern man perceived everything as being alive. He preserved the environment as o whole with himself as an integral part of it. Water, mountains range and trees were seen as live things. With these he formed an intuitive relationship that brought him into the external order of nature. Man arranges the elements around him to fulfill his needs. Later this situation begin to start vanish attentively step-by-step with haphazard developments came arise after the industrial revolution.

After the industrial revolution and technological advancement, complexity of buildings, haphazard developments begin to start rapidly whole over the rural setting and unattached from nature, and emphasize the urbanity with dynamic man made solid structures, and after lot of negative effects started to happening. Therefore all spaces between buildings getting more important in the urban city. That called as "urban space" that external space and out door environment of the physical structure. Man has needed successful environment.



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One of negative effect is reducing the "physical compatibility" in living environment. Still some Rural Villages has sustainable, peaceful, reposeful sedate and well-protected living environment. Due to rural setting, there is habitat living environment and built environment well balanced with nature without any obstructions and cumbrance. In that case Natural environment was assist and bestead to make a bridge between man and man made built environment. In urban environment man needs visual and physical comfortness and physical compatibility, that is build mass proportion instead of living mass proportion that relationship between built environment and the natural environment. Thus for the landscape design came into action. Therefore the landscape design begins to enhance the physical compatibility, visually and physically comfortnesss, with pleasing in urban environment. It came to being to make contribution for the dynamic urban setting to soften the built fabric and to legible the urban spaces within the urban environment.

As awareness of the environmental impact of metropolitan areas grows, physical compatibility takes on an urban flavor. In that case Landscape that is the Green Factor and other features of it have to base on to urban compatibility, and offers landscape strategies that encourage to increase compatibility that the increase of green spaces and other landscape designs within the city. Alan Tate point out "Landscape involves the creation of external spaces for purpose of utility and beauty and it highlight the value of the context. Otherwise it promotes high quality in Architecture and the build environment. "

Other effect due to rapid urbanization that urbanity with dynamic man made solid structures is the identification and orientation. It is the aggravating problem in current situation. Because urban environment provides complex experiences. Therefore people should be able to identify the spaces in correct manner at correct time. Lack of identifications, legibility that man can understand, possibility of reading the environment, symbolical things that symbolize messages in right time and orientations man become destitute and get into trouble in the urban setting. Thus the clarity of the urban environment that can creates legible environment well. Therefore legible environment is useful to directing an observer, person to the correct place.



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Norberg Schultz (1980) pointed out "Identification and orientation of place becomes of utmost importance to people". In that case man needs any identifications or symbols to find out their way at the right time. Man hopes, well communicable environment that can easy to find, easy to understand, easy to experience, and to get an idea of the place in correct manner. Therefore legibility is the vital important object for the observer in urban setting. That therefore Kevin Lynch introduce five elements such as paths, land marks, Edges, nodes and districts to make urban city environment successful. Identity, structure and meaning such elements contribute to enhance the legibility of the particular spaces.

In easy manner, how to strengthen these qualities and how to make easier for the observer to understand and identify the space or increase communicability with the space in correct manner. Involvement of landscape design act as a physical compatible material in the urban setting and same material carry into effect how to enhance the legibility of the urban space in correct manner. Study is going through this identified problem and further examines, through the landscape identify how far it makes strengthen communicability,

and enhancing the legibility. Further find out relationship between man and the environment from carry into effect the landscape and how far it achieve above board in correct manner.

"To get existential foot hold, man needs to be able to orientate himself. He has to know where he is. But he also has to identify himself with the environment, that is, he has to know how he is in a certain place"

Relph (1976) "If we face the current environmental situation, its state of deep endemic crisis seems evident. The crisis according to our hypothesis consists above all in the incapacity to express places which are endowed with meaningful values, responsive to needs of physical health of stimulating a grasp of existential identity".

Alan Tate "Landscapes were the first human texts, read before the invention of other signs and symbols". The language of landscape is our native language and that was the original dwelling, humans involved among plants and animals under the sky, upon the earth; near water every one carries that legacy in body and mind. Humans touched, saw heard, smelled, tasted, living and shaped landscapes before the species had words to describe what it did. It is integral to and intertwined with all aspects of human life. When an environment is not consciously interfered by man, we call it as nature. When it being observed by man, call it as landscape. Therefore Landscape architecture tries to maintain the optimum relationship with man and built environment as though nature involvement in past periods. See whether there is any possibility to enhance legibility when use of landscape into being in action as a human text that can easily readable. Examine how far it makes contribution to achieve legibility in easily manner in urban space to make better success readable urban environment well.

Methodology

Aim of this study is to make legible urban spaces within the urban built environment to make successful communication, understanding with particular spaces and to build relationship between man space and built environment using 'first human text' which is the landscape.

First must want to identify the formation of urban space in the urban city environment with different attitudes express by urban designers, planners architect's etc. examine how far it make contribution to enhance man and space relationship as a place making and how to functions as public gathering space well, and identify urban spaces that have emphasized prominent qualities characters well, and Find out theories that applied to enhance livability through the urban environment.

After-ward defines the legibility of the space going through principles and theories. Legibility is one of the identified livable component that makes contribution to enhance quality of the urban environment successfully. Understanding about legibility, identify the importance of the legibility in urban space and its purpose to Study. And finally discover the approach in role of the landscape in legibility and how far it makes contribution to strengthen it well.

Identify the role of landscape components with varieties of using landscaping principles and its impact for the space. Furthermore examine the way of strengthen the legibility through the landscape principles, and examine how far it creates legible living urban space with enclosure of build mass proportions.

Going through understanding about theories and principles in landscape and legibility, after-ward clarify involvement of proper landscape bring to enhance the legibility of the urban space in the built environment that selected urban areas at Colombo which is rapidly growing and very urbanized city which is the major focal point of the country.

Scope and limitation of the study

This study is going through understanding obtained from the theoretical background of landscape and image of the legibility, to a practical situation in order to get an insight into its applicability in selected urban spaces such as Streetscapes, open space and monumental spaces which are dominant characteristics in the urban environment.

Colombo is the rapidly urbanized city in the country and there urbanity and Haphazard development. Present day there is a large gap between theoretical orientations and practical applications of the urban space. But in some what there is several points can identify that clearly formed in the city at Colombo. Applicability of landscape theories within the practical situation would be through selected case studies Colombo city which is dominant urban city in Sri Lanka and urban spaces selection happening within the city, that there formation creates attractive and pleasing legible environment within the city through the attractive landscape. Selected case studies are enhancing build mass proportion and living mass proportions both acting together.

Study about involvement of soft landscape to highlight the hard landscape in urban setting in urban space and examine how far it contributes to enhance the legibility in urban space successfully.



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CHAPTER - 01

URBAN SPACE AND RESPONSIVENESS OF THE URBAN ENVIRONMENT

1.1 - What is an urban space?

1.1.1. - Space

Meaning of "space" gives different significance ideas. **"Continuous expanse in which things exist and move"** this is one of the meaning reflect nineteen meanings for space as shorted in Oxford dictionary. In different manner Leibniz saws space as the order of coexisting things or the order of existence for all things that are contemporaneous (Bochner 1973: 297)

Scruton 1979 was defined the concept of space as the essence of architecture remains powerful and the question of the relationship between container and contained, between mass and space, an open one.

Aristotle had described **space as the container of all objects.** (Wiener, 1975.-279). Therefore architectural space comes into being by the erection of two walls, creating a new space between them, which is separated from the natural space around them. Simply space can be commentating as a "Base Plane" with in the overhead plane, either side of enclosure planes. As a best example, "street" can be consider as a space demarcated by the either side wall planes which are building enclosure, trees and overhead plane which is sky. Otherwise space is the essence of everything including the human being.

Francis D.K.Ching define the space as a "Space constantly encompasses our being. Through the volume of space, we move, see forms and objects, hear sounds, feel breezes, smell the fragrances of a flower garden in bloom". In simply man recognize the space and experience it from the length, breadth and height. It is a measuring or a quantitative experience. He captures the volume, the space contained within. We can feel it and experience it with all our senses.



Fig: 01 pace with demarcations
Wall planes and overhead plan



Fig: 02 volume of the space
The length, breadth and height

When considering about the meaning of 'urban' it defined in different angles by layman, planners, architects and sociologist. Due to architect's view, social complexity and different lifestyle as compared to rural way of living, quite complexity of buildings and cultural diversity are as much definable features of urbanity. After the industrial revolution, haphazard developments begin to start rapidly whole over the rural setting and emphasize the urbanity with dynamic man made structures. Therefore in-between spaces with social relationship within the urban complexity identified as an urban space with different characters

1.1.2. - Different attitudes towards urban space

Urban space can be explicit in different ways due to predicates by urban designers, urban planners and architects. All professionals try to resolve the idea of Urban + space in different manner. Mainly urban space can be defined as "components of an extensive arrangement of buildings, road networks and open spaces within the limited physical demarcation of a city".

Urban space defined by Relph (1976) "it is an object of direct expression of people who participate in numerous activities within a physical organization of a city." As a result his identification of urban space as complex arrangement of spaces and the essence of its people, their expressions, activities and related physical developments and physical organization of the city.

Zevi Giedgion (1957) asserts that every building functions in the creation of two kinds of space: it is an **internal space**, completely defined by the building itself, and its **external space**. Identified External space is the urban



Fig: 03 street as a space
"Space with physical dimensions"
Space demarcate with wall planes which are building enclosure and overhead plane which is sky.



Fig: 04 Space between buildings and roads



Fig: 05 Space between buildings
An urban space was created to open up views and improve access to Westminster Roman Catholic Cathedral



Fig: 06 Space between buildings
External space as urban space 2

space, which circumscribed by that building and buildings around it. In this manner this means that identified space which is between every two buildings can be called as an urban space.

Furthermore, Bouillot (2002) convey idea of the urban space in this way, **"...the existence of the urban space is conditioned by the existence of several**

buildings which could dialogue together, if there is only one building in a place, there is no urban space ...". Otherwise there is no identified space if there is only a one building. In that case that predicates that the spatial quality of the urban space could be enhanced by the presence of character of the buildings.



Fig: 07 Buildings are isolated objects in the context

This same idea emphasized by Rob krier (1979). He has identified and mentioned about the urban space that the spaces between buildings within the town and city in this way.

"All types of space between buildings in town and other localities as urban space. This space is geometrically bounded by a variety of elevations. It is only the clear legibility of its geometrical characteristics and aesthetic qualities which allow as consciously perceiving external space as urban space."

He says that, to clarify the concept of urban space, it should include aesthetic criteria. Therefore, an urban space should be a place with of built forms as well as activities. However, to be a healthy and live urban space, there should be a concern on aesthetic aspect as well.

Rappoport (1990) commentate of the urban space is a **"system behavior settings, stages as it were, for various acts and behavior, giving people the right props. The whole play is the result of all the parts and is grater than their sum"**. The essence of all the definitions which described above ,bring forward that the urban space consists of a physical setting which facilitates a large segment of people and their activities, relation ship each other and conjuring different meanings.



Fig: 08 In-between space with Social activities

1.1.3. - Formation of the urban space

Social

Physical

Colquhoun (1989:223) define the urban space in two senses which are social and physical (built) space "its morphology, the way it affects our perceptions, the way it is used, and the meanings it can elicit".

All the world's cities are growing rapidly due to advancement of technology and population. City shaped and their formation happens due to variety of physical components (built structures) and spatial components in the city.

Georgia Butina point out the "Urban morphology as a method of analysis, investigates both physical and spatial components of urban form. Physical components consist of plots, streets, buildings and open spaces while the elements which define the spatial components of that land utilization and pattern of activities." (Urban design quarterly – "the use of urban history in the design of local urban areas" on December 1987).

Rob Krier (1979) defines the social and physical space as an external space and a geometrically bounded by a variety of elevations of built structures. It is the urban space. To shape the form of the urban space, all types of spaces between the physical structures have to balance with functional, attractive, animated structure in the space. It is the social structure. The specific land utilization, pattern of activities, functions, human behaviors and Social interaction happen within the space where space between buildings (physical built space) and enhance the character of the space and strengthen the space. As an example Human behavior with street vendors, market stalls, and exhibits of various goods, especially flowers and vegetables, can add a valuable element of colors, scents and life to the street scene can be identified as the social structure of the space within the physical demarcation.



Fig: 09 Physical enclosure
A great square reaches out into the surrounding neighborhood, like Piazza Maggiore in Bologna, Italy.



Fig: 10 Physical enclosure and Social behavior
Ground floor retail rings the edge of this square in Verona, Italy.



Fig: 11 living environment
Recreation, enjoying, relaxing and leisure activities within the public open space

Rappoport (1990) mentions like this way, "if certain forms and physical arrangements were always used in association with certain activities, the activity would get stabilized within that form". In such manner social vibrant structure form the physical structure of the space and in other way physical structure of the space form the social structure due to related functions happen in the space. The relationship between each other, form the urban space in the built environment. "Physical and social dimensions of the structures are interwoven, through distinguishable and modifiable in the degree and the extent their linkage." (Urban design quarterly – "structural frame work of urban space" on December 1987).

Differentiations of user category and human behaviors interpret the social and physical space which is the space between buildings and change the character of the place in different ways. In all communal life there is a dynamic balance between public and private activities. They unconsciously and consciously use the space. When people use the space in certain times without any obstructions, that place becomes a familiar place giving more importance for people to do their day today activities.

As an example Kompanchcha Vidiya –Colombo emphasized the character of the identified urban space. Different activities of the communal life that are Public and private activities happen along the street in same manner in every day. Therefore Physical enclosures make vital contribution to define the edge of the social vibrant urban space. If buildings are isolated objects sited in landscape without human functions, it is not the urban space. To be urban space social and physical components have to be getting together. That social and physical combination can see through the public open spaces, squares and the streets very well. Human being psychologically link and communicate with the space and there functions happening around the space. If it is related



Fig: 12 sharing space for various activities
Traveling to work, selling foods, eating etc.



Fig: 13 public and private social activities happening along built front Emphasize the image of the streetscape



Fig: 14 Physical enclosure and Social behavior in the street
MAIN STREET FACADES IN DENMARK 1990.

to their behaviors, they move about in that place as their own.

Rob. Krier defined those are most important components of the urban space. Further, Rob. Krier (1979) states that a city and its public spaces can only be built in the form of streets, squares and blocks of familiar dimensions and character, based on the local tradition. All those elements should be integrated appropriately to create better urban spaces. The block consists of buildings and the streets and squares are defined by blocks. Character of each of these elements manipulates the perception of the urban space. Width of the street, height and the size of the blocks etc. are few factors that contributed to urban space.

There social physical dimensions of urban form have a dynamic relationship and there communicable, Meaningful image of the space make interactive place with variety of social activities and animated urban space which is external space sited between the physical structures. Streets, squares, monumental spaces and public open spaces act as dynamic spaces within the dynamic urban environment.

1.2. - Urban space as place making

Goodall, 1987, Mayhew and Penny, 1992 pointed out the relation ship between space and place. Whereas space is seen as an open, abstract expanse, place is part of space that is occupied by a person or a thing and is endowed with meaning and value.

After, space becomes spacing between enclosures of the physical built components due to urban setting and that recognized as urban space. Here, Physical environment in identified urban space is direct outcome of the living society. Social behaviors with different activities shape the reality of the space and make bridge between space and the physical structure. It makes direct effect on the physical structure of the urban space. Both behave on each other intervening variety of activities and attitudes of people and impressions and intentions of them. In this manner the urban space and human being cannot be separated, as they constitute a single system.



Fig: 15 place making

Clark, 1985 "It is the interaction of people with this immediate environment that gives it characteristics distinct from those of the surrounding areas".

More over the relation ship of person to urban space dynamic rather than static. There is a constant give and take, with each providing reciprocal influence on the other. The shape our urban spaces and are intern shaped by them in a never ending cycle of mutual influence. Hence urban spaces as places became sources far different expressions of people and for establishing their lifestyles and inner emations. This is a significant aspect in the outcome of the urban space to place making relation ship.

These Place always act as a dramatical theater because of different people use the space at different times, for different purposes, different activities and convey different meanings with colures, elements and bring about

diverse of images. The public streets, squares and public spaces (markets, shopping arcades etc.), open spaces become fixed identities and meaningful places and people make strong connection between such places.

Heidegger states "Place" places man in such a way that it reveals the external bonds of his existence and at the same time the depths of his freedom and reality"

Otherwise a place is made up of human experiences and that are difficult to communicate and express as they deal with intangible feelings, impressions and emotions of an individual. Such human's spatial experiences generate meanings within the urban space and combine each components get-together and make different characteristic places. Therefore, can say the combination of Human activity, environmental aesthetic and aesthetic experiences are involved to place making. H. Munasinghe



Fig: 16 relationship between men and space

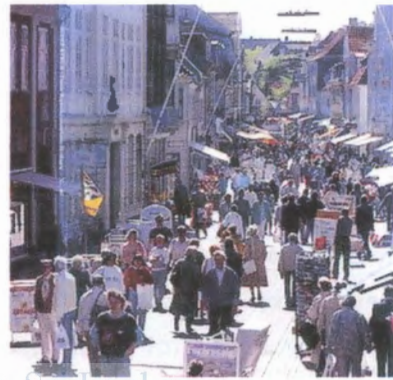


Fig: 17 fast moving, dynamic space with multiplicity of identities
STATE OF DANISH URBAN SPACE



Fig: 18 surround building enclosure make a barrier to enhance the openness and relationship between men make the place.
THE PIAZZA DEL CAMPO IN SIENNA, ITALY TOPS OUR LIST OF THE WORLD'S BEST SQUARE

point out in Built environment magazine "Place is conceived as the meaningful part of the environment, perceived and understood from the point of view of a perceiver".

"Places are complex integrations of nature and culture that have developed or are developing in particular locations, linked by flows of people and goods of other places. Place is not just the "where" of some thing; it is the location plus every thing that occupies that location seen as an integrated and meaning full phenomenon" (Relph.E, 76:19).



Fig: 19 public space.
street activities in either side

The 'place making' happening through the three components that are Physical, psychological and social related strongly each other in the urban space. People become attached to certain places; while in other instances places can detach people from their association. Such an attachment or detachment happens due to the mental experience of the individual who uses the space. Thus man and place show strong physical and psychological interrelationships too. Therefore Place making has vital connection with different activities as relaxing, fast moving, festive, gathering, festivity, playing, ritualistic etc. The legibility of such space and activity relationship brings to surface the meaning and place making. Place making can be seen through the urban spaces as urban squares, streetscapes, urban parks, builtscapes, monumental spaces and open spaces.



Fig: 20 public moving space.
Street activities happening between building enclosure in either side

Physical, social and psychological relation ship strengthens due to components of 'center, creating an enclosure and continuity'. Schulz (1980) speaks of the distinctive quality of any place created by man as enclosure. Thus the character and spatial properties of that place is determined by how it is enclosed. When an opening is introduced in a centralized enclosure, an axis is created which implies longitudinal movement; continuity.

In the ancient times the centre of the world has been symbolized by natural features such as a tree, a pillar a boulder, mountains etc.

As a Historical example in our early villages the temple was the centre. It was a place of social interaction for the important functions of day to day life; they identify it as a place that represents their social, cultural and religious values.

Enclosure primarily means a distinct area that is separated from the surroundings by means of a built skin.

An 'enclosure' can be demarcated by a mere change in the texture of the ground, or by a change of level, a freeway a coastline or a wall. Boundaries are, both separate places from each other and contained in them as well. The boundaries determine the degree of enclosure as well as it has a directional quality.

Continuity as the very word implies to suggest a path. Where there is path, there is the beginning to this path, a direction, an inclination to move along, facing of many upheavals, and the destination.

To exist, a space has to continue. It has to weave relationships with the other places surrounded as it



Fig: 21 Community gathering around the tree



Fig: 22 Temple was the center of social interaction



Fig: 23 Building wall plane act as a enclosure op the place

interested. To exist and to survive, man too has to continue and weave relationships. Continuity makes spaces meet, binds together and creates a harmonious rhythmic movement of spaces from one to the other. A Street can get as an example where series of spaces are connected together with activities and strengthen the continuity. A place where situated in a larger context as isolate manner, it cannot be understood and never make a relation ship between man and the place where hanging. In that case 'Continuity' establishes this relationship with

the surrounding and makes it a part in a large whole. Continuity makes spaces meet and creates a harmonious rhythmic movement mere for the changing character of a place is related to continuity and the experience of change serves to reinforce a sense of association and attachment to those places.

Meiss, (1986; 148) point out like this way, Thresholds and spaces of 'transition become 'places' in their turn; places in which the world reverses itself.

These all dominant components bestead to form the urban spaces and to enhance the communicable quality through the urban squares, streetscapes, urban parks, monumental spaces and open spaces and as well as at the same time the city as a whole.



Fig: 24 Continuity makes spaces meet, binds together and creates a harmonious rhythmic movement of spaces from one to the other

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Fig: 25 series of spaces are connected together with activities and strengthen the continuity

1.3. - Elements of the urban spaces in built environment

Urban squares/ streetscapes/ urban parks and
Open spaces/ Monumental spaces

The city can be commenting as a skeleton of urban spaces. Urban spaces in the city which are activity places where the city dweller can move freely and use them for communication, social interaction, entertaining and other urban activities on various instances it became the place where they live. Otherwise allow the possibility of containing the active public life of the city. Different kind of these urban spaces act as different way and comprise different characters each one for the other.

"The urban environment should again become a place favorable for human encounter for looking around, listening and talking to people, walking about and sitting down. Streets and squares should once again be treated as outside rooms within the city as places where the opportunity of contact between people to the primary consideration. All aspects of life in the modern 'functionalized' city are organized in such and unthinking way as to separate people from one another." (Living cities)

Urban squares

Urban space is the place where a particular activity or variety of activities carried out, for example urban square is a place which is full of different activities and social interactions. It acts as a center of the city and People clasp this space unconsciously due to quality of looseness, freeness.



Fig: 26 A popular square in Copenhagen, Denmark.
Center - A fountain was used to give the square a strong image:

A popular square in Copenhagen, Denmark, there Center of the space has a fountain was used to give the square a strong image.

Urban squares in the city, historically, they were the center of communities, and they traditionally helped shape the identity of entire cities. The image of many squares was

closely tied to the great civic buildings located nearby, such as cathedrals, city halls, or libraries. A square that becomes the most significant place in a city that gives identity to whole communities. Urban squares sometimes change with the seasons. Skating rinks, outdoor cafés, markets, horticulture displays, art and sculpture help adapt the use of the space from one season to the next.



Fig: 27 The holiday market in New York's Union Square.:

Historically famous squares

Michelangelo Buonarroti's the Piazza del Campidoglio Rome which is the smallest but considered the most sacred of Rome's seven hills. This location is considered hallowed or sacred because it has been the religious and political center of the Rome. This place was being into one of Rome's great urban space later.



Fig: 28 The Piazza del Campidoglio

Monumental staircase, the Cordon, runs from the bottom of the hill to the front of the trapezoidal space. The Cordon is a long and wide staircase with wide treads that creates a grand sense of arrival as one reaches the opening of the space. The entrance to the space is even more exaggerated by the great granite statues of Egyptian lions at the foot and two massive classical statues of the mythological twins Castor and Pollex at the top.

Elliptical star patterned paving is the typical feature of the node where the church has become an object with grate importance. It has an irregular geometric form with a sense of enclosure while it is provided with and entry and exit points



Fig: 29 Long and wide staircase with wide treads



Fig: 30 Social gathering around the structural element within the space

A remark often attributed to Napoleon calls the Piazza San Marco "the drawing room of Europe." It is the only great urban space in a European city where human voices prevail over the sounds of motorized traffic, which is confined to Venice's waterways. It is the only urban space called a piazza in Venice; as the central landmark and

gathering place for Venice. The Piazza is dominated by the Basilica, the Doge's Palace and the Basilica's campanile, which stands apart from it. The Piazza has always been seen as the centre of Venice. A great city square makes a feeling of animation when there are people in it.



Fig: 31 Venice-st-marks-square

A powerful and evocative central square focusing on enhancing public life of the city a place for casual encounter ritual Promenades and Ceremonies creates significant place through deep enclosure of spatial formation. Vast colonnaded circle in front of the church well defies the form of the space. The monument in the center emphasized by the paving pattern, has added interest to the lofty space of the node. Church has become an object with special importance directly facing the node. There entry and exit points are emphasized in correct manner



Fig: 32 St Peter's Square - the Vatican, Rome - Italy

Streetscape

Urban streetscapes are composed of three enclosure planes and these spaces contained with ground or base plane, the over head plane and wall plane. The street itself act as a base plane, canopies or sky act as a over head plane and building enclosures on either side of the street represent the wall plane. The manner in which these enclosure planes are composed creates certain identities to streetscapes.

Differentiation of street enclosures and different landscapes emphasize the different meaning of the streetscapes and. Therefore Spaces where the unified wall planes and the continuous corridors are create a linear shaft of the space. Such streets are generally grand and dominant in character but sometimes they appear dull and monotonous spaces due to the long and continuous form. Sometimes streetscapes can appear as elongated courtyard or as a series of pavilion where the recessions and jutting out of wall planes break the continuous corridor spaces or lobbies.

In the other hand Urban Street act as a social asset". The urban street can be taken as a key element of the living city and can be considered as an important social assert which is facilitate the livability of a city. Therefore Street act as a largest assemble of major public space with social gathering in every city and is meant to be available to all the people. Here upon we can consider the identity of the streetscape is tied up with the physical and social identity of its wider setting.

Recognizing all these facts would lead to create and maintain a setting of streetscape that will preserve its social value and generate a livable and meaningful urban life and experience and legible for the people of the city.



Fig: 33 Narrow streetscape with balconies and pavements



Fig: 34 recessions and jutting out of wall planes break the continuous corridor spaces or lobbies.



Fig: 35 "Urban Street as a social asset".
Street activities carried out the character and meaning of the streetscape due to social landscape and enhance the dynamic character of the space



Fig: 36 "Madison is the one street in that connects Elliott Bay to Lake Washington. Tree lines are along the vehicular street. Those are make shadiness for the pedestrians

Monumental spaces

The space which express the message itself, can perceive without considering the way it created. If space fulfill the symbolic function of the monumentalism that space became a monumental space. Especially those Monumental spaces try to enhance the beautification of the place and act as a one of the greatest symbol in the city



environment. In the world cities Most of monumental spaces are contain with historical identity. Therefore that particular space should obtain the attention, should continuously keep it during the perception, remain the essence after perceiving it and should give a message something commemorate. War memorials symbolized the event that happened rather than the death of individual person. Sculptured type also differs in two ways. Figurative commemorate the person. Functional type including gateways, clock towers, and light houses etc. act as monumental features and monuments arise as to cater the particular function.

These monumental spaces act as breathing spaces in the urban city and it is a kind of an urban space which is free space between buildings and road networks. Monumentality tries to enhance the character and identity of the city. Especially somewhat it emphasize the historical identity of he place.



Open space/ urban parks

Urban space quality depends on the proportion of built environment and open space. In particular land use and the accessibility to open and green areas, are important components in urban life quality, as is the balance and maintenance of the towns' natural environment. The rapid development of cities, increasing back and forth commuting from the adjacent urbanized areas added to unbalanced situations. Open space holds a high potential in many respects, both for urban development and being a greening build up areas. Therefore open spaces are the breathing spaces of an urban context. Parks, community gardens, greenways, water fronts and other types of open spaces act as urban spaces in built environment. Community gathering places, parks etc. have something to offer everyone. These all open spaces bring about continuity, connections and relationship between buildings.



Fig: 37 Greenwich Park
Character of the park

Frederick Law Olmsted, America's first and pre eminent landscape architect argued that "Parks" should be places that bring together the widest range of people provide them with 'a sense of enlarged freedom. He believed in the restorative affects of landscape, in terms of both respiratory and mental health.

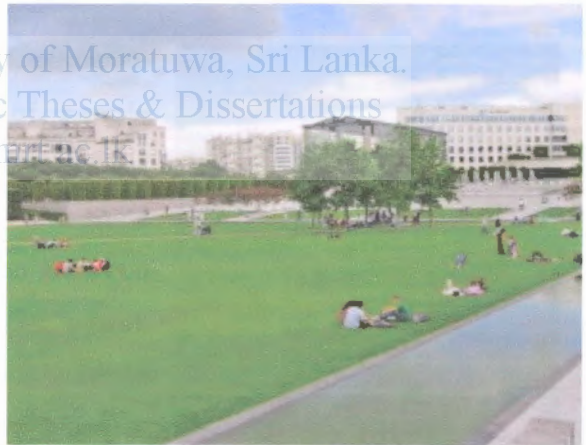


Fig: 38 urban open green space
A sense of enlarged freedom

Those open spaces will be alive with various activities of people of various ages, talking, playing, people-watching, flirting, just passing through, or enjoying time alone but in the company of others and provide easily accessible and spread throughout the community. It plays major role in the urban context to create living public environment where people can live and move all the time. The goal of environmental enhancement is closely related with open spaces because there trees and greenery are considered by most people to be aesthetically as well as psychologically important.

1.4. - Urban space as public gathering space

Social structure and their behavior act the major role in the elements of urban space. Therefore the quality of the space between buildings provides attractive, and usable public space is key to the success of a place. The public space needs to encourage public life by allowing a variety of activities to take place, responding to different daily and seasonal needs, and catering for all members of the community. Activities such as the staging of impromptu street entertainment, children's play or celebratory events and parades, are best accommodated in the public space that urban spaces such as streets and squares and urban open spaces and parks.

Spaces and routes need to be multi functional, attractive and inviting regardless of the quantity of people populating the space. This should allow a range of different people to use the same space, at the same time but in different ways. A clear distinction between public and private space is defined by building edges. Streets should be considered as part of the public realm as are the 'backways' and spaces immediately adjacent to ground floor uses. Proper interface between building and public space creates a dialogue promoting surveillance and interaction. Active ground floor frontages, which encourage 'comings and goings' will enhance the interface. Therefore the detail of the public gathering space manifested in the paving, materials, planting, lighting and signage all contribute to its success. Urban publics are taking part in the shaping of a city's reality.

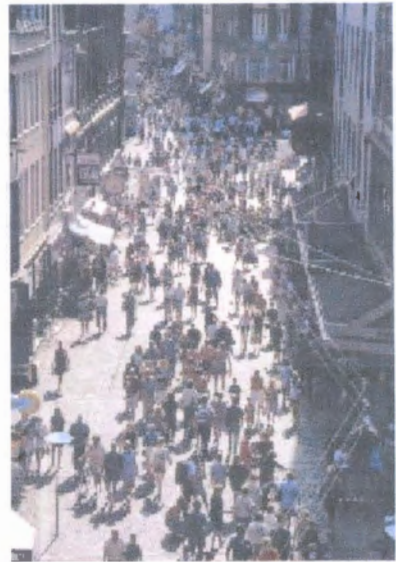


Fig: 39 The pedestrian street full of people with different activities. Moving, chanting



Fig: 40 The pedestrian zone in central Copenhagen remains Urban space act as a public space

1.5. - Responsiveness of the urban environment

In rapid urbanization, city shaped and developed with full of road net work and buildings. Therefore man felt into inconvenience situation when finding the exact place that he want to go. In that manner urban planners felt that inconvenience situation and realized some qualities to smoothen inconvenience and to make better environment. Man has ability to recognize the place with out any obstructions and can get clear image of the place. Responsiveness achieved from permeability, Variety, Robustness, visual appropriateness, Richness, Personalization and Legibility yclept qualities.

Permeability is one of the identified quality in responsive environment of the urban space. It recognized as "only places which are accessible to people can offer them choice of access through it, from place to place, is therefore a key measure of its responsiveness".

Interconnection between public and private spaces visually and physically and accessible to everybody.

People need access across the interface between them. If there is not an access to enter to the public place in physically, but it should be shown in visually that the place where you want to access. Therefore visual permeability is very important in urban space. For an example some public spaces depends on the number of alternative routes it offers one point to another. Therefore pathway must be visible in correct manner. Otherwise people already who know the place take advantage of them. (Public moving places which is every one can move with out any obstructions)



Fig: 41 Permeability

Variety has to be experience implies places with forms, uses and meanings. A place with varied uses has varied buildings of varied forms; it attracts varied people, at varied times for varied reasons. Because the different activities, forms and people provide a rich perceptual mix, different uses interpret the place in different ways: it takes on varied meanings.



Fig: 42 Robustness
Used for many different purposes

Robustness places which can be used for many different purposes offer their users more choice than places limits to a single fixed use. Specialized spaces for different

activities, separated from one another for reasons of privacy. But activities in public space are public activities: they rarely need to be separated from one another for reasons of privacy. Indeed in public space, it is the activities themselves which act as the most important supports for other activities: people come there to experience other people. So if public space is chopped up into separate compartments for separate activities, most of its robustness is removed.

Visual appropriateness is more important in the places which are most likely to be frequent by people from a wide variety of different backgrounds particularly when the places appearance cannot be altered by the user them selves. Both indoors and out, therefore, visual appropriateness is mostly important in the more public spaces of the scheme. It is means designing the external image.



Fig: 43 Visual appropriateness

Personalization makes clearer a place's pattern of activities. It is particularly valuable in robust environments, accommodating a wide variety of uses, changing over time. by encouraging each user to dress the building differently, personalization can make each use explicit.



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Legibility is a term which has introduced by Kevin Lynch. It recognized as a vocabulary in architecture and in the urban environment. A legible environment is one which is not ambiguous but which is easy to be read and understood. Therefore a place that has a clear image and is easy to understand called as legibility of the space. Architectural vocabulary it is used as a quality of the physical environment. If an environment is not confusing, it is easy to be read. If environment is legible, it makes vital contribution to find places which he never visited before. Legibility is the most important quality to identify the real image of the place.

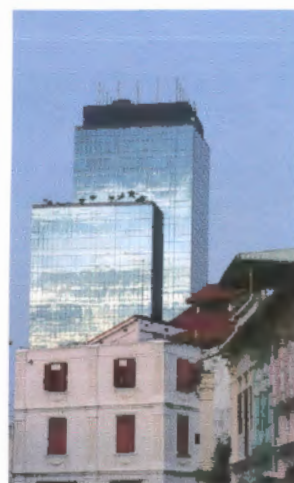


Fig: 44 legibility
Old and new

1.6. - Chapter conclusion

Varied urban spaces that, urban squares, streets, monumental spaces and urban open spaces, are the enlarged community activities and events that take place in urban environment. In this urban space becomes an object of direct every experiences of people who participate in the numerous activities of the city life. Therefore it is a grate place making and act as a public space and otherwise livable space in the urban environment. People need easy identification when living in the urban environment because it provide complex of experiences. In the other hand people desire to live in a well organized and easily identifiable urban environment. Here urban spaces make vital contribution to identify the spaces in urban environment.

Therefore urban space must have communicative quality to help understand and communicate or to get clear idea of the true meaning of the place. Applying theories of responsive environment help cities rethink how they present themselves, how they communicate and how they trade on their differences. Therefore urban space become communicable space in the city. Legibility is the greatest term which was introduced by Kevin Lynch to the vocabulary in urban environment is one which is easy to be read and understood and creates successful communicable space.

What is legibility? And further examine how it makes contribution to man's experiences.



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CHAPTER - 02

LEGIBILITY OF THE URBAN SPACE

2.1. - Role of the image of legibility

The city was a work of art, fitted to human purpose. A good environment supports purposeful behavior: it makes a good fit with user actions and that the ideal environment is one controlled in all its essential respects by those who use it. Legibility is a term used to describe the ease with which people can understand, can read and clearness to be identified the layout of a place and it is the vocabulary of the urban form. The concept of legibility mainly depending on the people's 'mental maps' and mentality he analyzes and visualize image of the environment. Legibility must want to deliver the right message at the right time. It initiatives aim to link urban users to their destinations in a complete movement and information system, thereby making cities accessible, welcoming and easily understood. It is also a philosophy for city development. A legible city leads to civic pride, itself a key factor in city success.



Fig: 45 compacted urban environment

Lynch point out, "A place must not only fit the structure of our bodies. It must fit the way in which our minds work: how we perceive and image and feel. This may be called the sense of place". Lynch used the term "sense" in the context of place to mean: the clarity with which it can be perceived and identified, and the ease with which its elements can be linked with other events and places in a coherent mental representation of time and space. Sense was not understood first and foremost by an analysis of the physical

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Fig: 46 Toronto city
Compacted urban environment

environment but began by a consideration of the images and priorities of the users of a place'. Three components of sense congruence, transparency and legibility described explicit connections of settlement form to non spatial concepts and values. At a deeper level of connection was the expressive or symbolic significance of a place. Lynch saw the urban environment as a medium of communication that used explicit and implicit symbols



or signs to provide useful and interesting information. He wrote this is a component of sense that we might call legibility the degree to which the inhabitants of a settlement are able to communicate accurately to each other via its symbolic physical features. As the environment is an enormous communications device it is constantly being read by people, be they the anxious tourist, the knowledgeable inhabitant...the casual stroller. People look for different clues to understanding, but the identity and legibility of places provide a common visible base to which all people can give their own interpretation.

Sings and symbols are part of the physical world of being they have one clear meaning and are used to denote the object to which they are connected with. Therefore simple communication happening from sings and symbols and Ideas are conveyed particularly to people who are compelled to dwell in its surrounding. (Basic idea of the legibility)

There are basic constituents to build the image successfully and to strengthen the legibility successfully.



Fig: 47 symbolic physical features
Man makes communication with them



Fig: 48 china town — street
Full of signs and boards to read and find the space

2.2. - Involvement of constituents to legible the urban space

Lynch sets aside his interest in experiential spaces and the human projection of meaning into them for a prioritization of the physical qualifiers of the urban landscape, saying his study looks for physical qualities which relate to the attributes of identity and structure in the mental image. ... The definition of what might be called imageability. That quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, color, or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment. There Identity and structure strengthen from the visual attractiveness and psychological emotions. Therefore identity, structure, visual attractiveness and psychological implications subscribe to build the successful mental image.

2.2.1 - Identity/ structure

"A workable image requires first the identification of an object, which implies its distinction from other things, its recognition as a separable entity. This is called identity, not in the sense of equality with something else, but with the meaning of individuality or oneness. Second the image must include the spatial or pattern relation of the object to the observer and to other objects. Finally object must have some meaning for the observer whether practical or emotional. Meaning is also a relation but quite a different one from spatial or pattern relation."

In the other hand identity of an urban space is tied up with the physical elements and social identity (user) of its wider setting. However, this identification is bound by limits of scale that are normally smaller than those of the city as a whole. This being so, if authentic collective identities are to be maintained and created, it is necessary to understand the city not as a global, unitary system but as a number of relatively autonomous small systems. Identity of each fragment of the urban space and urban space with the coherence of its form, its function, its image. Its mean identification of the space and there objects which implies its distinction from other spaces and make it easy to recognize.

Grove A.B. and Cresswell R.W (1983) point out "a sense of place strong enough to create an image. Human activity and the vitality it generates are indispensable; these are the invisible assets of a city; but each person's aspiration and image will be as different as their individual perceptions". "Trafalgar square and piazza san Marco are different: these are foci for activity generated, not by the buildings but by their special sense of identity, an as meeting spaces for social and political activity".

Identity can achieved through the ease of understanding by providing a system of recognizable routes, nodes and features to orientate users. Development should support existing routes and reinforce views and vistas where possible. Physical elements should support the importance of these routes contribute to creating a distinctive identity. Meaning is another component of legibility. Any space and object has meaning to the observer whether it is practical or emotional. There important thing is to express the correct meaning to the user or the observer.

User

Those who use the space make vital contribution to enhance identity of the space.

"Moving elements in a city, and in particular people and their activities, are as important as the stationary physical parts. We are not simply observers of this spectacle, but are ourselves a part of it ...

Most often; our perception of the city is not sustained, but rather partial, fragmentary,

mixed with other concerns. Nearly every sense is in operation, and the image is a composite of them all" (Lynch, 1960: 2).

Physical setting/ enclosure

That quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, color, or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment. It might also be

called legibility, or perhaps visibility in a heightened sense, where objects are not only able to be seen, but are presented sharply and intensely to the senses (Lynch,

1960: 10). Successful urban space is defined and enclosed by buildings, structures and landscape. As an example the relationship between buildings and street are fundamental to this. Buildings must relate to a common building edge and reinforce and define the street. Building heights and scale should relate directly to the width of the street and space between buildings. Antoniades, 1980"scale is a dialogue between human and object, while proportions denotes only a dry concept of physical relationships between the part of a building."



Fig: 49 social behavior in the street



Fig: 50 physical enclosure define the space
Street in Brugge, Belgium places comfortably shared by transit, bicyclists, pedestrians, and cars

2.2.2. - Visual attractiveness

Lynch does not limit his vocabulary to visual terms, either. Alongside color, shape, motion, and light are "smell, sound, sense of gravity, and perhaps electric or magnetic fields" (Lynch, 1960: 3)

The character and aesthetic enjoyment of an area is largely derived from its visual appearance. Legibility, then, is a function of reception of a city's visual landscape when elements of form which have accumulated over a period are subsumed in a unified image. The organization of elements into a pattern suggests legibility is produced rather than given, though the implication is also that cities can be designed to facilitate such organization. The assimilation of a series of interlocking if separately created spaces into a distinctive pattern are, for Lynch, a criterion for civic beauty, but legibility is also a means for citizens to gain emotional ownership of their city by having a mental picture of it. The landscape can be get as a one of readily appreciated feature to enhance the visual attractiveness

2.2.3. - Psychological implication

Special component is psychological perception of the place. Therefore mental image of the environment makes contribution to legible the urban space. According to Boulding (1961) the image is a mental picture which is a product of experiences, attitudes, memories and immediate sensations, used to interpret information of the human environment. It is much more like an 'organized model'.

The spatial aspect is the one of aspect presence of physical elements within the image consuming a particular part of space, assumed psychologically into an image. Otherwise emotional feelings are evoked by the mental picture and the overall organization of its elements with in the image. Relational aspect is the interrelationship between the above elements themselves and the relationship between the spatial, relational, value and emotional elements themselves and the relationship with the whole image made with each of them within the mental picture.

Therefore psychological thinking plays a major role to make relationship between man and urban environment setting. Emotions make different meanings with related mental images and read the space from mentally. Psychologically man gives measurements for all space due to his emotional perception of the space. Calm, assertive, friendly, majestic, powerful, serene, humble, formal etc. can be tell as some kind of mentality measurements of the space. The man's feeling very powerful to make a mental picture and it legible

when it is readable by individuals with varying mental abilities. It is called imageability of an environment.

"A good environmental image gives its possessor an important sense of emotional security ... a harmonious relationship between himself and the outside world" (ibid)



Fig: 51 Emotional perception of the space
Bring about calmness, stillness through the space

Lynch says (1960) "every scene is instantly recognizable, and brings to mind a flood of associations. Part fits into part; the visual environment becomes an integral piece of its inhabitant's lives. It is by no means perfect, even in terms of imageability... but there seems to be a simple and automatic pleasure, a feeling of satisfaction, rightness and presence..."

These all constituents try to build the good image successfully. Basically it strengthens the imageability and enhance the readability quality.

According to Lynch (1960.46) legible city consist of five types of elements. These five elements support each other and gave good image for the city. These dominant five elements can be identified within the renaissance period cities. What are the key physical elements of legibility?

2.3. - Key physical elements of legibility Paths/ Nodes/ districts/ edges/ landmarks

Legibility, in the context of navigation and way finding, is a term which has been used for many years in the discipline of City Planning. Work on legibility in this area has been concerned with the way in which people are able to 'read' an environment and hence perform way finding tasks. Kevin Lynch defines the legibility of a city as: "...the ease with which its parts may be recognized and can be organized into a coherent pattern..." Here, Lynch is referring to the formation of a cognitive map within the persons mind [Passini 92], a structure which is an internal representation of an environment which its inhabitants use as a reference when navigating to a destination. By examining this data Lynch identified five major elements of urban landscapes which are identified by the inhabitants and used

as the building blocks of the cognitive maps. The physical elements that make a space legible are forming mental maps with these five elements. (A person's perception of the world is known as a mental map. A mental map is an individual's own map of their known world.)

- Paths – The channels of movement such as streets, railway lines, canals, airways, pavements.
- Districts – The recognizable sections which have a particular identity and character. Sections of the environment which have a distinct character which provides coherence, allowing the whole to be viewed as a single entity. Districts may be identifiable by the nature of the architecture of their buildings or by their use.
- Edges – structures or features providing borders to districts or linear obstacles. Examples might be the waterfront in cities built on large rivers, or a major road. Note in the latter case that the road may have a dual nature, being a path for someone traveling in a car but an edge to the pedestrian.
- Landmarks – The points of references. Readily identifiable objects which serve as reference points
- Nodes – The major centers or focal points. Road junctions or town squares.

There were wider implications of developing legibility according to Lynch. 'Legible structure has an obvious value in facilitating the practical tasks of way-finding and cognition, but it has other values as well', he argued: It can be a source of emotional security, and one basis for a sense of self-identity and or relation to society. It can support civic pride and social cohesion, and be a means of extending one's knowledge of the world.



Fig: 52 Narrow pathway with building enclosure

Paths familiar routes followed are the channels along which the observer customarily, occasionally, or potentially moves. They may be streets, walkways, transit lines, canals, railroads. These are the major and minor routes of circulation that people use to move out. A city has a network of major routes and a neighborhood network of minor routes. Paths make communication between different points of city by physically connecting them together. Paths are the principle organizing elements of a city, while the other physical elements can be arranged relating to the paths.



Fig: 53 Paris city - major focal point
Enhance Paths and major nodal point

A path should primarily, have a sense of enclosure, directional quality and continuity with a definite beginning and end. The scale of the buildings along sides and the width of the street determine the degree of enclosure. Plan configuration, number of minor streets connecting and the gaps between the buildings are the other influencing factors of the sense of enclosure.

Therefore paths play a vital role by acting as communication elements between different places of a city. Not only that it creates hierarchy but also limits the city to a certain boundary. Color tenure of paving repetition of opening a rhythmic pattern of building facades trees planted on a boulevards contribute to maintain the continuity of the path.



Fig: 54 St. Peter's square
Enhance Paths and major nodal point.
Urban Square as node and it can regular or irregular in their physical form and it provide high degree of enclosure while making the nodes strong in appearance.

Nodes centers of attraction that you can enter are points, the strategic spots in a city into which an observer can enter, and which are intensive foci to and from which he is traveling. They may be primary junctions, places of a break in

transportation, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square. A node is a center of activity. Actually it is a type of landmark but is distinguished from a landmark by virtue of its active function.



Fig: 55 Piazza San Marco with the Basilica, by Canaletto, 1730
World famous public square



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Fig: 56 Piazza San Marco with the Basilica
These famous squares act as the major nodal points in the city center.

Where a landmark is a distinct visual object, a node is a distinct hub of activity. Can give a sense of arrival and an improved perception of the town when enhancing the gateways and focal points in the town.

Having identified these elements Lynch describes the skeletal elements of city form. To build a broader vocabulary upon this basic framework we must consider other natural and man-made urban form determinants.

Districts areas with perceived internal homogeneity are medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters 'inside of and which are recognizable as having some common identifying character. A city is composed of component neighborhoods or districts; (its center, midtown, its in-town residential areas, organized industrial areas, train yards, suburbs, college campuses etc.)

The physical characteristics which generate a common character in an area are numerous in variety. It can be character of spaces or spatial flow pattern in an area which makes the homogeneity. Common building forms, building type, façade treatment, fenestrations, detailing use of materials, color and texture or even the skyline can create an area with homogeneous character. Sometimes the function of activities of an area can produce a common character, and a similar historical background is another factor which results in a common architectural style or characteristics.

Boundaries of districts can be well defined or obtuse. A river, water body, or an open space forms a fixed and definite boundary for a district.

Edges dividing lines between districts are the linear elements not used or considered as paths by the observer. They are boundaries between two phases, linear breaks in continuity: shores, railroad cuts, edges of development, walls. "The termination of a district is its edge. Edges are very significant and important features in a city feather they are in the form of rail roads, thoroughways, district boundaries or topographical features. A clear transition from a water body to the land or from on



Fig: 57 Venice water canal
Water's edge has strongly defined the boundary between the water body and built area. Its continuity, visual prominence and depth have made it strong as a seam.

open space to a built area provides an opportunity for an edge which is open to view thus attracting visual attention.

Fig: 58 Boundary/ edge
Buildings as elements that
form the edge to the city



Landmarks points of reference are another type of point-reference, but in this case the observer does not enter within them, they are external. They are usually a rather simply defined physical object: building, sign, store, or mountain. The prominent visual features of the city are its landmarks. Some landmarks are very large and seen at great distances. Some landmarks are very small (e.g. a tree within an urban square) and can only be seen close up, like a street clock at Konak Plaza, or Atatürk Statue on Cumhuriyet Square. Landmarks are an important element of urban form because they help people to orient themselves in the city and help identify an area.



Fig: 59 Marcus-square- campanile
Land mark
Historical importance and
location have established it
as a memorable landmark
of the city.

“ paths, nodes, landmarks and edges constitute the skeleton of the urban image, which is fleshed out with areas of less strongly differentiated urban fabric.....the flesh it self is organized into districts medium to large sections of the city, recognizable as having some particular identifying character.”(Bently, Ian, Alocock Alan, murrain paul, McGlynn Sue, Smith Graham – responsive environment -1985, pg-45)



2.4. - Importance of legibility in urban space

In modern era the urban environment of city becoming thickly populated buildings spring up in large numbers and formed by a combination of urban spaces which are dynamic activity places. Towns and cities are more complex and there people with varying experiences, abilities and intentions. Therefore legibility of urban space is basic need and important. Urban space has to meet one other indispensable condition to be easily readable, to be comprehensible. If this is not so, if the citizens do not have the sense of being carried along by spaces which communicate their identity and enable them to predict itineraries and convergences, the city loses a considerable part of its capacity in terms of information and accessibility. In other words, it ceases to be a stimulus to collective life. This is particularly important to the outsider who needs to grasp the place quickly.

".....the city's growth can be only partially controlled, and by an idea that a city should be beautiful. The built environment affects human dynamics: "Obviously a clear image enables one to move about easily and quickly" (Lynch, 1960: 4)

Otherwise a good environmental image gives its possessor an important sense of emotional security ... a harmonious relationship between man and the outside world.

To establish a comprehensible language it is necessary to reuse the semantics and the syntax that the citizen has already assimilated by means of the accumulation and superimposition of the terms of a traditional grammar. It is not a matter of simply reproducing the historical morphologies but of reinterpreting what is legible and anthropologically embodied in the street, the square, the garden, the monument, the city block, etc. The cities have a language of its own which it is difficult to escape. Therefore have to enhance the image of the city in correct manner through emphasizing their own language and visualizing clear understanding of their spaces.

"Ignoring the symbolic meaning of physical elements and focusing on spatial or behavioral legibility, the danger is to build boring surroundings that might affect the cognitive representation of the setting". (Kaplan, 1983). Otherwise legibility supports for generating effective social virtual spaces in the physical complexity of urban environment. The physical complexity of the city, first of all has to be seen as a street phenomenon.

Streets are at the same time the general ordering structure of the city and the kind of space where urban encounters can take place on a wide scale in everyday life. Improvement of legibility of the urban space creates a legible welcoming environment and strengthens links between man and space and makes it easier for all pedestrians and city dwellers to access facilities. When encouraging more people to use make a public gathering space. Therefore enhancement of legibility makes heavily contribution for people who hanging around the urban city and helping people to move more easily, effectively and enjoyably through our urban spaces. and the other hand for physical structure to easily identify the building and surrounding environment.

2.5. - Chapter conclusion (How to achieve legibility from landscape)

Cities and towns are more complex and make an urban environment and there people with varying of experiences, abilities and intentions. Therefore legibility is a key basis for city prosperity and applying of legibility help for man to communicative facility with urban space. The modern urban space can be visually overwhelming and confusing to move through, particularly for the pedestrian. In these competitive times, a successful city will be one best able to connect people, movement and places efficiently.

Paths, nodes, edges, landmark and districts reshape and enhance the legibility of the urban environment and therefore identity of the space with physical and social structures and psychological feelings and visually attractiveness make imageability with different meanings due to each person.

Urban spaces which are the spaces between buildings and towns most of the time it act as public space and which is the ideal place to meet, perform, hang out, and enjoy the city. In this case can see role of landscape, how far make the contribution in the urban space to strengthen the image of the space and make the city success. Will see how far it makes contribution to make physical compatible environment.

So further discussions go through the role of landscape in urban space and find out how to create the legibility from landscape that enhancing the clear image. Identify the components of landscape, and elements and principles in landscape design. And find out different approaches in landscape to enhance the legibility and finally find out how far it contributes to create the Legibility.



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CHAPTER - 03

THE ROLE OF LANDSCAPE IN URBAN SPACE

3.1. - Components of landscape.

Water as a landscape component

Water is one of the greatest aesthetically pleasing element in the natural environment and it brings the presence of nature into the urban environment. John Ormsbee Simonds (1983) point out “free water is the shinning splendor of the natural landscape”.



Fig: 60 Nature.

Waterscapes are constructed water features in urban public plazas and parks designed to make the aesthetic qualities of water. They celebrate the role of water in our urban landscapes and allow people to experience the qualities of water through touch, sight and sound.

For most people the glimmer of sun light on open water is sure to elicit an exclamation of discovery and delight. The feelings may be expressed as a shout of triumph or as a silent upsurge of the spirits. But the sight and sounds of water evoke a sense of pleasure. Streams and water bodies are the punctuation marks in the reading of the landscape.



Fig: 61 One of the splash fountains in operation, running at full height

John Ormsbee Simonds (1983) “Water has become symbolic. It cannot and promotes refreshment and stimulates verdant growth. Its presence converts desert into oasis”. Where water is abundant and its use is to be featured as in urban spaces such as plazas, urban courts, malls and parks provide water in all sorts of forms: waterfalls, water walls, rapids, sluiceways, water tunnels, meandering brooks, and fountains of all kinds.



Fig: 62 Water feature

Norberg Schultz Christian(1971) " the place become alive and it seems as if we, humans are in a dialectic mood with another being who speaks in silence....a place with a soul that communicates with us, shows that we are part of that place". Water stimulates different moods in peoples with its power to change the character creating different effects.

One of the best things about water is the feel of it. People love to reach out and touch it. They stick their hands in it, stick in their toes and feet, and sometimes even splash about in it.

Unconsciously social activities gather around the water feature due to their feelings. Such activities are taking a walk to get a breath of fresh air, standing around enjoying life, or sitting and sunbathing.



Fig: 63 reach out and touch
Gather around the water feature



Fig: 64 Children at-water play

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Fig: 65 reach out and touch
Gather around the water feature



Fig: 66 Child at-water play



Fig: 67 the sound of water

Trees as a landscape component

Nature is the first landscape in the livable natural breathing environment and get into change due development of buildings and man made structures. Therefore man made cultured landscape intraduce to make livable environment again and make a balance between built environment and the natural environment. Therefore trees are the major element help to make sensible livable space.



Fig: 68 Natural environment. Full of colorful trees and water body

Trees and plants provide people to a comfortable and safe place to live and livable breathing space. Trees create attractive soft relief in extensive built up areas and add a dimension of human scale. Street trees are very popular with the general public. Today's concerns about the environment also support the introduction of vegetation to our cities to help curb pollution and provide an ecological resource. Trees should be sensitively located, particularly in the vicinity of historic buildings, and an integral part of the streetscape. However, tree planting in ground should be the priority.

Bedding is a type of planting which should be encouraged. The positive response from the public suggests that it should be encouraged as a special feature in public parks and squares. In some case the position of trees carefully considered and helps to soften the hard outline of a building or emphasize the importance of a space creating a focal point. Groups or formal rows of trees make a valuable contribution to the relationship between a streetscape and a building and used to reinforce the form and structure of streets and spaces. Help to explain the clear direction to the entrance ways and also they enhance the welcome quality.

Tree planting is functional as well as aesthetic. The urban fabric of the street is disjointed and trees can be used as a linking and unifying element. The scale of the street is such that trees can be used as a space forming element, defining movement and change in use. In the other hand trees use to highlight junctions, nodal points, special urban features or buildings, or to define routes (streets, pathways, pedestrianised spaces). Otherwise type of Trees, scale of it, color and form always emphasizes different characters in different way.



Fig: 69 Trees and plants provide people to a comfortable and safe place to live and livable breathing space



Fig: 70 large trees provide shady environment for people and make livable space

Paving/ steps as a landscape component

Create steps for make sitting spaces and for make level changes in different manner. In the other hand the steps make for enhance easy and inviting quality. Making built-in features "sittable" give people the freedom to sit up front, in the back, to the side, in the sun, or out of it. This means designing ledges parapets, and flat surfaces to do as seating, tables, and shelves.

Differentiation of paving type, form and color, texture emphasize the meaning of the space. Define easily character of the space such as relaxed, exclusive, sacred space or free moving space. In some cases paving make grate contribution to define the entrance path way and enhance the directional quality. Otherwise it brings social comfort ness when moving or doing other activities in well designed paved spaces.



Fig: 71 Making built-in features "sittable" give people the freedom to sit up front, in the back, to the side, in the sun, or out of it. This means designing ledges parapets, and flat surfaces to do as seating, tables, and shelves.



Fig: 72 type and colors of paving quality enhance the exclusivity of the space.
Century square



Fig: 74 Pioneer Courthouse Square, Portland



Fig: 73 step space and it is just right for sitting, eating, and sunbathing.



Fig: 75 People will most likely sit where pedestrian flows bisect a sittable place. And it is not so perverse of them. It is by choice that they do.

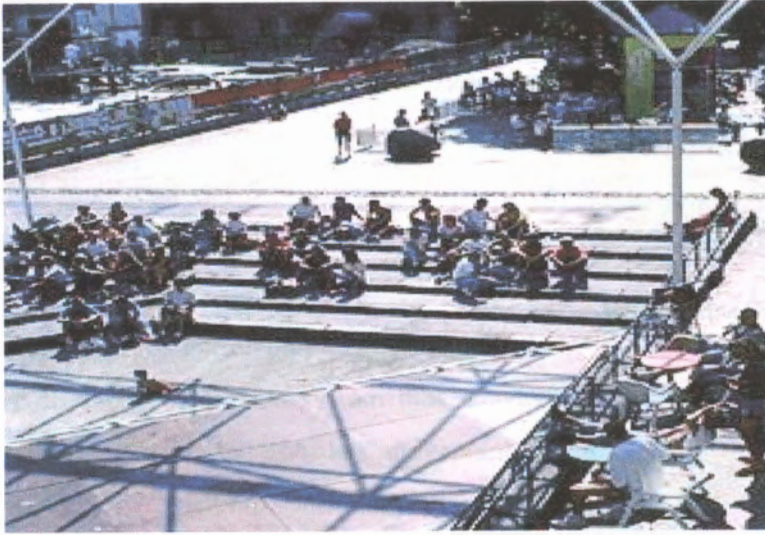


Fig: 76 steps provide level changes and people has used those steps unconsciously and make dynamic liable space. It implies direct relationship between the person and provide comfortable feeling



Fig: 77 The distribution of a linear pattern on the floor, the color and texture used, increases the monotony of the large square

Street furniture as a landscape component

Impact street furniture can have upon the experience and enjoyment of a place. Functional street furniture (for example, bins, benches, telephones, bus stops) should be available when needed but must not create clutter or obstacles. In addition, street furniture is introduced across a city; the unified look must not disregard the distinctive character of individual districts.

Consistency and continuity is important, however, when the furniture is part of a communication system that conveys information to guide and assist people's movement. A uniform communication system, including graphics, nomenclature and product positioning, can create a strong visual identity while allowing discrete individuality.

Furniture is welcoming and provides interesting visual outlook and meeting places. Different types of railings and fences try to enhance and provide adequate security and emphasize specific space demarcations.



Fig: 78 street furniture (sitting benches) create meeting places and creating friendly spaces



Fig: 79 Circular benches provide a comfortable place to sit in Rockefeller Center, New York City.



Fig: 80 Victoria square
Specify the space demarcations using elemental railing fence



Fig: 81 bus stop, light posts, benches shape the space



Fig: 82 bus stop, light posts, benches define livable space



Fig: 83 building seats with plantation, light posts, elemental posts define the boundary of the street

Signage as a landscape component

Signage performs multiple functions. On the most basic level, it provides effective information and direction for people to find their way around place, a building complex, park, or other public space. It can also encourage learning experiences; create and maintain an image for a place; communicate rules; and provide a sense of place and local pride by incorporating history or cultural details.

Signs can meet specific needs and target certain areas. But their location is key. Placing signage in conjunction with other amenities such as benches, cafes, restrooms, and phones, or places where paths cross, can create mini-"destinations" or places-within-a-place. Elements that are "triangulated" in this way have a bigger impact together than they would separately, and allow users to attend to several needs at the same place. When they are well-located, signs can help to create a comfortable and social place where people can relax and spend time. Serve of information to easy communicate. Walk along the paths frequented by different types of users: visitors, tourists, residents, workers, families, younger and older people, wheelchair users, bicyclists, frequent or infrequent users, etc. Make observations on these different types in order to "see" the way people make decisions and how they enter and move through a place.

Maps at entry points, within the boundaries of a place, and along set distances of pathways can help to increase and enhance users' knowledge, curiosity and interest about a place. Maps not only can help visitors guide and direct themselves, but highlight points of interest as well. Information Kiosks/Bulletin Boards help users who are only familiar with part of a place that they frequent, and unaware of its entire range of features or facilities. Often users are also uninformed about events and activities.



Fig: 84 Signage performs multiple functions



Fig: 85 Serve of information to easy communicate



Fig: 86 Information Kiosks/Bulletin Boards

3.2. - Elements and principles in Landscape design.

Today's world main theme is "Create a sustainable urban environment". Therefore legibility is the one of the key element to enhance the sustainability of the urban environment as discussed as above. In that case urban streets, squares, open spaces and parks and monumental spaces play the major role to success theme of sustainability. In the other side landscape makes vital contribution to successful and help to add some new qualities to or to improve the urban environment. Therefore how to evolve the landscape to enhance the legibility and make successful the environment?

Sheila Harvey (1992) point out "In recent years a grater public awareness of the environment has strengthened the role of landscape design, inability it to forge essential links with nature, even in hostile situations, landscape is perhaps the only discipline linking sustainability of nature with the civilizing interests of humankind"

People like to hang around places where they can make sense of the environment while also being engaged with it. Therefore components of landscape in numerous ways help to make better legible sense of environment.

Landscape is something pleasant to be seen, to be remembered and to be understood. To a user it is something pleasant and remarkable and to a visitor it may be a life long experience. Vegetation and soft textures where trees, grass carpets, shrubs, bushes, sand and water fountains, ponds act the major role to enhance the sense of environment. In the other hand floor levels, steps, street furniture, building seats, street lights, paving and other structural elements act as a hard landscape. Landscape is defined by manipulating any of its five elements: color, line, form, texture, and scale.

Color is used to convey emotion and influences the mood and character of the overall landscape design or parts of the design. It has three properties: hue or chroma, value, and intensity. Hue or chroma refers to the relative purity or strength of the color. Value determines how light or dark the color is, whereas intensity refers to how bright or dull it is.



Fig: 87 color of the trees



Cool colors like greens, blues, and pastels seem to move away from you and can make an object seem farther from you. Grays, blacks, and whites are considered neutral colors and are best used in the background with bright colors in the foreground. However, to increase depth in a landscape, can use dark and coarse textured plants in the foreground and use fine textured and light colored plants in the background. Colors can also be used to direct your attention to a specific area of the space. A bright display among cooler colors would naturally catch the eye.

Line creates order by directing eye movement or flow. Lines in a landscape give the eye directions about where to look. Lines may be used to draw attention to an object, divide a space, group related objects together, or separate unrelated objects in landscape design. In

landscape design, these can be achieved through the arrangement of plants and borders. It can mostly be related to the way beds, walkways, and entryways move and flow. Straight lines are forceful and direct while curvy lines have a more natural, gentle, flowing effect.

Form defines the shape and structure of an object. In landscape, form indicates the shape of a plant and the structure of its branching pattern. Tree forms are defined by branching pattern, while shrub forms are determined by growth pattern.

Texture is the surface quality of an object. Texture is how something feels when it is touched or looks like it would feel if touched. Both animate (plants) and inanimate objects (buildings and structures) in landscape design have texture. The coarseness or smoothness of the leaf, bark, and foliage of plants and trees and of buildings, patios, and walkways define texture in landscape design.



Fig: 88 line and form of trees define the edge



Fig: 89 form, shape and structure

Scale refers to the size of an object in relation to its surroundings. Scale in landscape design is inferred by the size relationship between adjacent objects. As a general rule in landscape design, plants and structures in landscapes should be proportional to the human scale.

These elements such as color, line, form, scale and texture are very important features in landscape design and it try to strengthen the legibility and make easy identification, easy communicable quality to user and in the other hand make the exact clear right image in the space at the right time. Calmness, exclusive quality, directional quality emphasize from these elements.

In other hand Landscape design follows a combination of seven principles and it point out by Steve Boulden such as unity, balance, proportion, focalization or emphasis, sequence or transition, rhythm, and repetition.



Fig: 90 Line of trees, type of trees, texture, scale, proportion and paving pattern strengthen the character of the space

Unity gives the landscape design a sense of oneness and interconnection. Unity in landscape design can be achieved by using plants, trees, or material that have repeating lines or shapes, a common hue, or similar texture. Consistency creates unity in the sense that some or all of the different elements of the landscape fit together to create a whole. As an example can take one large white round boulder here and another large red

square granite boulder there and so on, then you've seen that unity wasn't created by this particular element.

Unity should be expressed through at least one element in landscape and preferably more. Using elements to express a main idea through consistent style and a specific theme is what creates harmony.

Balance gives the landscape design a sense of equilibrium and symmetry in visual attraction. There are basically two types of balance in landscape design which is symmetrical and asymmetrical. Symmetrical or formal balance is achieved when the mass, weight, or number of objects both sides of the landscape design are exactly the same. It is where there are more or less equally spaced matching elements of the landscape design. With a space equally divided, both sides could share all or part of the same shape, form, plant height, plant groupings, colors, bed shapes, theme, etc.

Asymmetrical balance in visual attraction may be achieved by using opposing compositions on either side of the central axis. On the other hand it is one of the principles of landscape design that's a little more complex. While textures, forms, colors, etc. may remain constant to create some unity, shapes and hardscapes may be more random. This form of balance often has separate or different themes with each having an equal but different type of attraction.



Fig: 91 symmetric balancing of color line of trees, type of trees, texture, scale, proportion and green grass bed strengthen the character of the space

As an example of this would be where bed shapes or paths differ on both sides of the landscape dividing line while still sharing some of the same elements and plants. One side could be curved with a sense of flow while the other side is straight, direct, hard, and completely opposite. Again, unity and balance will be created through other elements. Asymmetrical may be being unbalanced, abstract, or free form while still creating unity and balance through the repetition of some elements. Asymmetrical balance isn't dependant on the shape of the space.

Contrast and harmony can also be achieved using plants. Fine foliage verses coarser foliage, round leaves verses spiked leaves as well as color compliments and contrasts. Plant height, color, and texture may be varied from one area to the next but each area should stay consistent within its own theme.

Proportion describes the size relationship between parts of the landscape design or between a part of the design and the design as a whole. Proportion in landscape design must take into consideration how people interact with various components of the landscape through normal human activities. The goal is to create a pleasing relationship among the three dimensions of length, breadth, and depth or height. Waterfall and pond placed in the center of a large open space would get lost in the expanse. Water feature can be proportionate if placed in a corner or on the edge of a large area and becomes a focal point of the larger area while creating its own distinct atmosphere.

Focalization or Emphasis directs visual attention to a point of interest or prominent part of the landscape design. This could be a hanging earth-forms sculpture, a stone-finished Corinthian garden fountain, a mass of architectural herbaceous perennials, or an elegant spruce. Emphasis in landscape design may be achieved by using a contrasting color, a different or unusual line, or a plain background space. Paths, walkways, and strategically placed plants lead the eye to the focal point of the landscape without distracting from the overall landscape design.



Fig: 92 Balance and focalization

Sequence or Transition creates visual movement in landscape design. Sequence in landscape design is achieved by the gradual progression of texture, form, size, or color. Examples of landscape design elements in transition are plants that go from coarse to medium to fine textures or soft landscapes that go from large trees to medium trees to shrubs to bedding plants. A transition from taller to shorter plants give a sense of depth and distance (like in a painting), making the garden seem larger than it really is. A transition from shorter to taller plants used to emphasize frame a focal point to make it stand out and seem closer than it really is.

Rhythm creates a feeling of motion which leads the eye from one part of the landscape design to another part. Repeating a color scheme, shape, texture, line or form evokes rhythm in landscape design. Proper expression of rhythm eliminates confusion and monotony from landscape design.



Fig: 93 Rhythm.

Repetition in landscape design is the repeated use of objects or elements with identical shape, form, texture, or color. Although it gives the landscape design a unified planting scheme, repetition runs the risk of being overdone. However, when correctly implemented, repetition can lead to rhythm, focalization or emphasis in landscape design.

Consider about all these principles and elements create variety of sensible spaces which can read, communicate and feel in correct manner. Variety of spaces and there variety of meanings emphasize from the elements which are placed in the space. Is that the legibility of the space?



Fig: 94 structural landmark enhance the focalization

3.3. - Different approaches in landscape to enhance the legibility

There are different approaches in landscape to enhance the legibility. Those are enhances, Physical compatibility and Beautification.

Enhances

Enhances has clear structure that is recognizable in terms of specialty. Thus giving a clear understanding of a place in terms of its congruence between physical form, activity patterns and so on. In the other hand landscape make a contribution to make enhances.

It enables one to move about easily and quickly, to find the place that we want. Clear legible structuring of a place enhance from the signs, advertising information. But overall visualized picture of the place enhance from the landscape. Place identification make easier from the landscape

Rhythm of Placing of different type of trees, shrubs and other plants and other landscape elements, people try to identify the space. It sometime enhances the beauty of the place and enhances the quality of the place such as exclusivity, free moving, relaxing quality, sacred quality, festive and intimate character, Expressive qualities that of calmness and serenity etc and people try to behave due there enhancing quality through the landscape. Different kinds of streetscapes with landscape make different enhancements and increase the readable, communicable quality.



Fig: 95 Tree planted street, vehicular moment directed towards to the building
Line of trees focus eye towards.

Otherwise Use landscape to enhance the public pedestrian spaces with benches, lighting and similar amenities. Public urban spaces mostly offer pleasant seating and adequate lighting to invite users to a comfortable and secure spaces. Therefore Public urban spaces without such amenities will not be as inviting and may be unsafe.



Fig: 96 pedestrian amenities such as benches, trash receptacles, and shade trees



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Physical compatibility

City dwellers most wanted thing and their dream is successful sensible livable animated city having harmonize with nature. Urban areas with high concentrations of buildings, roads and other artificial surfaces retain heat, creating urban heat islands. Satellite data reveal that urban heat islands increase surface temperatures compared to rural surroundings. Therefore people activate to create physical compatibility with using landscape features such as water, trees and other hard landscape features.

Urban open spaces and parks are the one component enriches the physical compatibility. It makes contribution to balance the physical congested environment in correct manner. There proper landscape adds comfort and relates it to the earth and to the physical environment.

People's image of the physical form of the city is almost entirely based on their perception of the outside spaces. The cities that work well are those that combine the need for human comfort out of doors with built form, which exploit to advantage their natural characteristics and opportunities, and combine with specially planting and paved surfaces. Parks are essential to a city's happiness.



Fig: 97 Jewel of a city in Georgia, is a wholly formal grid of forested squares and tree lined open spaces.

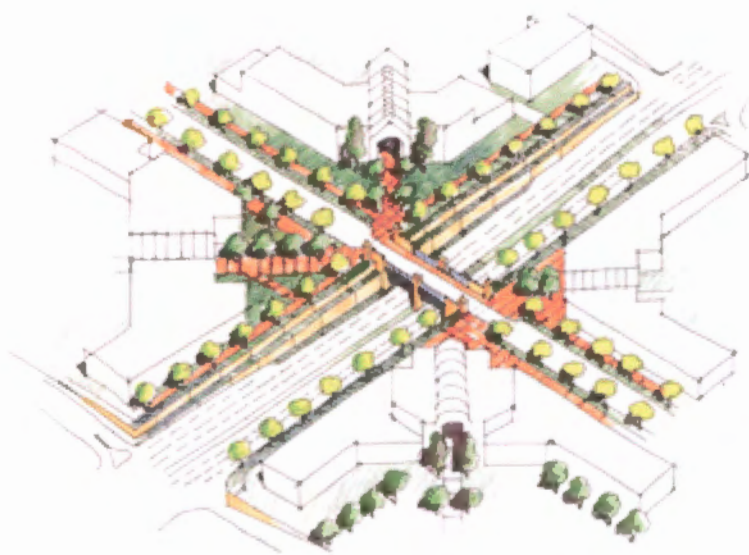


Fig: 98 enhance the physical compatibility using the same type of line of trees balancing along the street and alleyways and emphasize the physical form and streets between the physical form



Fig: 99 enhance the physical compatibility due to vast open space in the middle of the congested physical structure.
Central park at New York

Beautification

Norveg Shultz point out the level of landscape result from "mans interaction with the natural environment." Landscape is an ancient art, which has evolved through the years with man's cultural aspirations and social attitudes and which deals with conscious arrangement or organization of outdoor space for human satisfaction and enjoyment. Therefore landscape used to improve the good appearance and their place to look pretty of the living place and gathering places where people hang around every moment.

Bernard Berenson, 1948, point out landscape is the art of representing an out door space. "Landscape like music liberates feelings and dreams rather than stimulates observation". Zen art turned away from the supernatural, the symmetrical and colorful ostentation, emphasizing instead natural, asymmetric and monochromatic compositions. Create functional and aesthetically appealing outdoor spaces. Landscape design is the art of organizing and enriching outdoor space with plants and structures for aesthetic and/or practical purposes. Landscape design seeks to create balance between living and natural environments in order to derive the greatest use and enjoyment from outdoor space. Thus

Monumental spaces add beautification and try to enhance monumentally effect through the proper landscape.

"Enhance the visual appearance of the city. Aesthetics is defined as a branch of philosophy dealing with the nature of beauty, art, and taste, and with the creation and appreciation of beauty."

Therefore proper landscaping improves the appearance of an area and makes a more pleasant experience for the users and viewers of the area.



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Fig: 100 Enhance the visual appearance of the city
Current state of Dotonbori River

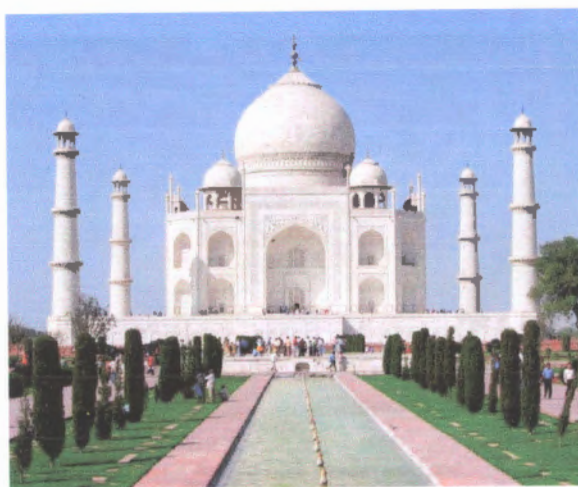


Fig: 101 beautification enhances through the landscape elements and increases the monumentality quality



Fig: 102 In Portland, Oregon, traffic calming has been undertaken in. Paving and flower pots increase beauty of the street and the space.



Fig: 103 Beautification

Create aesthetically pleasing image in the urban situation



Fig: 104 front of physical enclosure and balconies compatible with flower pots, trees and other landscape features

3.4. - The role of landscape in urban spaces to create the Legibility

3.4.1. - The role of the landscape in Squares to create legibility

The square has become the city's place of pride and a focal point for all kinds of community activities and it impact on the livability of the city. The space is sufficiently enclosed on four sides to justify the name 'square'. Any great square has a variety of smaller spaces within it to appeal to various people. It includes landscape such as natural elements trees, plants, fountains and man made elements such as sculptures, steps, furniture, different type of posts etc. These elements make legible in the space and make an attraction and make the square successes. Therefore Squares and plazas shows people to that it is a place which is for public use. Thus different kind of rhythm of landscape enhances the legibility of the space.

In the square main element is a fountain and it was used to give the square a strong image. It is the focal point of the square and it emphasizes principle of 'focalization' in landscape design. Focus the eye towards to the center of the square that because of the water fountain in the center (central focus).

It attracts the people and encourages interaction among people. In the other hand provide other elements that invite people to engage in numerous public activities. Inviting quality is a part of the legibility. As a historical example St Peter's square formed and shaped by the building structure and it enhances the symmetric focus and orientation by creating a visual axis between it and the space. Central focus is a structural post and it emphasizes the inviting quality.

Square feature amenities that make it comfortable for people to use. A bench or waste receptacle in just the right location can make a big difference in how people choose to use a place. Lighting can strengthen a square's identity while highlighting specific activities, entrances, or pathways. Thus these all, enhance the legibility of the square space.

Thus landscape strengthens the identity, structure and meaning (image) of the square and tries to create the legibility of the space in correct manner.



Fig: 105 Square in Giron, Colombia, South America there huge tree is the focal point in the center of the square. People have created an image unconsciously about the tree and the surrounding environment and they unconsciously gather around it.



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Fig: 106 Square feature amenities that make it comfortable for people to use. A bench or waste receptacle in just the right location can make a big difference in how people choose to use a place.



Fig: 107 A short pedestrian crossing at Plaza Santa Ana in Madrid, Spain.

Narrow path way enhance the clear entrance to the Plaza Santa Ana in Madrid, Spain. There attractive landscape enhances make feeling inviting to the space. It emphasize clearly that anyone can enter to this place. It make easier and give clear image when enter to the place. Either side of trees create inviting quality and enhance the pulchritude of the pathway and variegate the way in correct manner. As well as it define the edge of the street.



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Café tent structures define the edge of the street. Small posts also define the edge and it act as a fence of the street. Pedestrian symbols, pedestrian crossing give clear image for pedestrians.



Fig: 108 Water features and different kind of steps play the major role in the square



Fig: 109 Spanish steps rome, 1721-25
People experience through the level difference. Scale and proportion of the flight of steps emphasize the importance of the place



Fig: 110 This flight of steps enhance the exclusivity of the space. It emphasize from the character and identity of the building enclosure. Scale and proportion matter for here.



Fig: 111 Trafalgar square
Historical identity. Flight of steps and elemental hand rail directed to the historical building. Colors, textures, materials represent the surrounding historical environment.



Fig: 112 Rhythm of steps and between them has ramps. (Change of levels)

This space is visually and physically enclosed with building facades and they enhance the demarcation and boundary for the space. There rhythm of steps and between them has ramps make different experiences through the level differences and demarcate spaces to move here and there and people move through that demarcated linear space in correct manner. Paving pattern and rhythm implies direct relationship between the people. It provides comfortable place to form social relationship. Small posts and light posts make the path way and direction towards to the out and the other hand it may be act as a fence for the building. It can be Private use of the building. People move only places where demarcated.

Building facade has treated with using color panels and it makes sense of pleasure of the space. Due to mental perception people grasp and identify idea of the space and behave they like to behave. It is not so perverse of them. It emphasizes social friendly quality and people move here and there very freely. All features of the landscape design create visually attractive and graceful pleasing environment and in the other hand it plays a grater in enhancing of the legibility in the space successfully, As well as outer ring of the space.

3.4.2. - The role of the landscape in streetscape to create legibility

In the urban environment, we are often confronted with a spatial paradox. Therefore walkways must feel inviting and comfortable to pedestrians and daily shoppers, yet accommodate heavy volumes of traffic. In this moment landscape came to contribute to this problem. Landscapes and streets must work at different scales, for pedestrians and for vehicles. Walkways and vehicular streets work at differently and different landscape designs contribute to legible the streetscape in way.

Differentiates of street trees act in different scales and in different types and it provide along the street to enhance demarcation of the street and the other way to soften the building façades, to create street character, and provide shade for pedestrian in street level activity. Landscape elements such as Streetscape elements of street trees, street furniture, trees and plants decorative paving, sculptures/artwork, and bus shelters consistent on the along the street and those are act as enclosure plane to define the street space. In the other hand those are provide to enhance the pedestrian street life activity and to provide interest along the streetscape. All streetscape elements provide information of location of spacing.



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Street trees such as large, broad spreading, open-canopy trees at matured heavy foliages of trees in streets represent different characters. Calmness, spirituality, serenity, inviting and security quality and straight forward, freestanding trees represent directional quality in traffic roots and it enhances the speeding highways. These all qualities produce due to human feelings and image of his mind. Feelings are depend on there identity, structure and the meaning and these are producing by building enclosures and identified characters. The enclosure of the street creates a strong sense of place

Bright planted, colorful flowers, leafy plants and flower shrubs on important roads, circles, green areas and access roads to make the city more lively and delightful and it improve the city appearance and enhance easy identification of the space. Street lights shall be installed on both sides of streets along the street tree alignment line and parallel to the street. Street symbols and sign and boards are the major communicative symbols in the streets and those all features form the streetscape.



Streetscape encompasses both public and communal streetscape, buildings, and street and landscape design and includes all adjacent buildings and landscaping and fencing, traffic treatments, paths, drive ways, street surfaces and utility services. The special arrangement (including building set backs) of these components and their visual appearance determine the streetscape character.



Fig: 113 straight forward, freestanding trees represent directional quality in traffic roots and it enhances the speeding



Fig: 114 either side tree lines that heavy foliages with overhead canopy emphasize calm and quiet traffic movement. And emphasize the specialty of the root. Thus can say landscape make vital contribution to enhance the legibility of the street



Fig: 115 Bicycles are the preferred mode of transport around Lucas's tree-lined medieval walls. Tuscany, Italy
Calmness and relaxing quality enhance from the line of trees on either side. It act as enclosure plane in the street

Different types and different color of tent structures act as a new landscape feature in the urban street market spaces. Form the space consistent of these elements and people recognize the space and place, due to happening activities and peoples movements in the space. Their identity, structure and meaning strengthen clearly from the landscape.



Fig: 116 Las Vegas has recently used a tent to create an environment covering Main Street



Fig: 117 Tent structures along the narrow pathway. It may be temporary structures for a moment.



Fig: 118 Nodal junction with landscape design. It creates aesthetically pleasing environment



Fig: 119 Logan Circle's. Nodal junction with landscape design. It creates aesthetically pleasing environment.

Circle is clearly showing the correct way to go. Easily can identify the own way and it make vital contribution to enhance physical compatibility. Meaningful spaces are those that allow people to make strong connections between the place, their personal life and the larger world.



Fig: 120 Manchester City Center, UK
Signs and boards communicate with city dwellers
It creates the city image

3.4.3. - The role of the landscape in urban open spaces to create legibility

Urban open spaces and parks are the one of grate element to enhance the physical compatibility in urban environment and the other hand contribute to easy identification of the place in the city and it greatly contribute to strengthens the city image in correct manner. It is a one of a readable symbol in the urban city environment. If not man re-enter and use repeatedly in same manner. Sometimes It act as a central focus point and it direct the path ways in either sides. So people can clearly recognize the place that he want to.

An area of open space and parks mainly a public gathering space. Park uses are often divided into two categories: active and passive recreation. Active recreation is that which require intensive development and often involves cooperative or variety of team activities, including playgrounds and ball fields. Passive recreation is that which emphasizes the open-space aspect of a park and which involves a low level of development, including picnic areas and trails.



Fig: 121 Hesketh Park at Britain Park periphery bounded with the physical congested



Fig: 122 decorative paving enhance the stillness and line of trees make a central focus

Sheila Harvey point out "Landscape reshapes the world not only because of its physical and experimental characteristics but also because of its eidetic content, its capacity to contain it and express ideas and engage the mind. Moreover because of its bigness in both scale and scope, landscape serve as a metaphor for inclusive multiplicity and pluralism as in kind of synthetic over view that enables differences to play out. In these terms landscape may still embrace naturalistic and phenomenological experience but its full efficacy is extended to that of a synthetic and strategic art form". Further he point out" the urban park as a cultured landscape in the city".

Central park is the first large city park in the United States, making it one of New York City's most popular attractions. A wide, tree-lined promenade is a formal arcade, designed for stately strolls. In contrast, the heavily wooded Ramble creates a feeling of dense forest and seclusion. Open meadows give one a sense of natural expanse and have accommodated a few of the largest outdoor physical structure. These all enhance the legibility of the park covered with full of trees. There wooded forest appearance compatible and harmonize with the new landscape design or work of is "The gates". This park and its grate landscape design of "the gates" one of the greatest example to talk about the enhancing legibility in the urban open space and park and in the other hand can talk about the physical compatibility.

"The gates" one of the creative design within the central park. It means "entrances". Many of these park entrances have names: Mariners Gate; Boys and Girls Gate; Artists Gate; Emigrants Gate; Explorers Gate; Inventors Gate etc. There specialty is creative man made arcade going through the large area of the park and It creates the pathway clearly. Due to psychological perception man easily responds to this pathway and they identify



Fig: 123 The Gates seemed like a golden river appearing and disappearing through the bare branches of the trees and highlighting the shape of the meandering footpaths.



Fig: 124 whole area of the central park with surrounding congested physical structure

how to go, where to go. They can clearly read and communicate with the space and grasp the meaning of the way.

The geometric grid pattern of the hundreds city blocks surrounding Central Park was reflected in the rectangular structure of the commanding and sculptural saffron colored vinyl poles, while the serpentine design of the walkways and the organic shape of the bare branches of the trees was mirrored in the continuously changing rounded and sensual movements of the free-flowing and hanging saffron colored fabric panels a golden ceiling creating warm shadows and moving in the wind. When seen from the buildings surrounding Central Park, The Gates seemed like a golden river appearing and disappearing through the bare branches of the trees and highlighting the shape of the meandering footpaths. Parks are making grate contribution to city happiness.



Fig: 125 people work through the creative footpath. It directed towards. There physical structure clearly visible in the surround.



Fig: 126 Central park at New York. Park with green meadow.



Fig: 127 Show the direction clearly where to go. Clear structure enhances the clear legibility of the space.



Fig: 128 Show the direction clearly where to go



Fig: 129 principles of line, balance, scale, type and focalization of the landscape show the direction clearly. (Central mall park – New York)

Foliages with over head canopy trees, sculptures, and fence, furniture and light posts enhance splendor on the way. Make well come quality.

3.4.4. - The role of the landscape in Monumental spaces to create legibility

Monumental spaces enrich the beautification of the place and the city environment and it act as a one of the greatest symbol in the city as discuss previous chapters. In the world cities Most of monumental spaces are contain with historical identity and some are contain with political identity as well as majestic exclusive identity. Memorial space should obtain the attention, should continuously keep it during the perception, remain the essence after perceiving it and should give a message something commemorate.

The Taj Mahal is one of the greatest world's most beautiful and beloved structure and it symbolized monumentality in Agra, India. It is the wonderful breathing space in the city. Symmetric landscape always make focus towards to the monument. From the entrance try to make focus towards from the landscape. People try to mentally visualized and find the meaning of the landscape, there is something special feature or structures towards in front. When closer, can see the Taj Mahal sits on a raised platform surrounded by four minarets. Still symmetric landscape focus to the structure. Therefore it realized the greatness and importance of the place and the structure. There all features are very symmetrical and well balance and also the massive form of white marble structure the same.

physical and visual linkage of heritage monuments through a new riverfront circulation system--promenade for visitors to increase their visitation (beyond the Taj Mahal), and designing gardens and parks on its either sides to increase viewing opportunities of the Taj, facilitating the 'reading' of the story of heritage sites and historical events through framed views, informational and directional signage. Current patterns of landscape use by the citizens of Agra and directs visitor movement through this dense and dynamic landscape

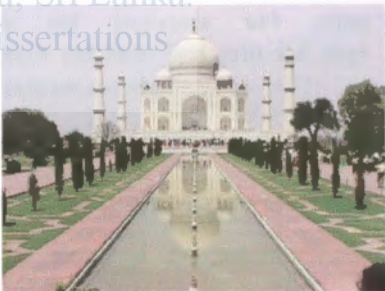


Fig: 130 line, balance, focalization, scale enhance through the differentiation of landscape. Contribution of Water, trees, paving pattern can see clearly.



Fig: 131 Clear view of the Taj Mahal with grate landscape.

Sydney Opera House is one of the most recognizable image of the modern world and it emphasize the qualities of the monumentality. In the other hand this place emphasizes the national Heritage Values. It is significant in the course of Australia's cultural history as well as the history of the performing arts in Australia.



Fig: 132 Sydney Opera house with surrounding water body

Its Form, scale and location of the Opera House make it one of the most significant landmarks in Australia. The building's ability to emotionally move people and invoke a strong aesthetic response is enhanced by the experience of approaching, entering and moving around the building and surrounds. The public promenades including the Forecourt, Broadway, and podium platform and steps contribute to the majestic qualities of the



Fig: 133 Broadway and promenade with sitting arrangements and linear light posts and rough textural decorative paving.

place. The large forecourt and sweeping podium steps prepare the visitor for the majestic quality. Water body emphasizes the monumentality and majestic quality very well. Today it has come to represent the 'Australia'. These all qualities depend on communicable quality of the space and the structure and the landscape.

Man's mental image is very important to grasp the idea of the place. Mental image can be wrong or correct. Therefore landscape designs help to get the right image, correct idea from the place and in the other way to find the place in correct way at the correct time. Thus landscape principles such as scale, type, color, balance, and focalization, texture form, line and proportion help to make the proper landscape design and try to communicate with environment and the user. Thus we can say the role of the landscape make vital contribution to create the legibility.

3.5. - Chapter Conclusion

Due to Kevin Lynch theory a good city form would have readable or identifiable elements such as nodes, paths, edges, districts and landmarks. Such readable symbols formed a "cognitive map" orienting spectators in space and time. While Paths, Edges, Nodes, landmarks and districts enhancing the legibility of the urban environment and therefore the Identity, structure and meaning of the space to enhance and strengthen the legibility of the urban space.

There are many ways of using urban space more creatively, maximizing the potential to develop an identity and unique role for these spaces. Therefore improvements of signing, paving, lighting, street furniture, planting etc. will encourage people to view the urban space as an attractive and enjoyable place to be. It is make easier to people can understand the place. In that case automatically create legibility in the urban space.

Making those who live and work in towns and cities or who come to visit feel safer, more confident, more welcomed, more connected, indeed more included, is a guiding principle of legible city initiatives. The Image of the space depends on a visual perspective through which the component parts are recognized.

Considering all these all aspects can find out, Landscape play wonderful role urban squares, streets, urban open spaces and parks and monumental spaces. In some what those all spaces act as easy identifiable elements of the legibility in the urban environment. Therefore these spaces automatically create the legibility in the urban city environment. Kevin Lynch (1960) point out "Legibility is a key basis for city prosperity".



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CHAPTER - 04

STUDY OF THE ROLE OF LANDSCAPE IN ENHANCING OF THE LEGIBILITY OF THE URBAN SPACE

4.1. - Basis for the selection of Case studies

Over the last hundred years towns and cities have changed and the Colombo city is the biggest and capital in the country. It is the one of the major metropolitan city and focal point of the country which is rapidly growing and very urbanized. Modern trends of urbanization were welcomed as signs of technological advancements and complexity of buildings. Streetscapes and skylines have radically altered reflecting the huge growth of man made built environment.

Significant urban spaces were understood as being identifiable few components to strengthen the mental image. Thus the good image tries to enhance the legibility successfully. In some what it strengthen from the landscape. Landscape tries to make vital contribution to strengthen the mental image successfully.

There has identified urban spaces In the Colombo city and see whether there landscape how far make contribution to strengthen the mental image and therefore how far it strengthen the legibility in different urban spaces such as urban streetscape, urban open space and monumental spaces.



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Selected case studies are "Baudhaloka mawatha" and "Nawam mawatha" as streetscapes. They represent particular characters with landscape and Colombo Galle face green is the one of greatest open space with formation of the surrounding environment in the edge of the city, independence square and new parliament premises with esplanade relationship of a symbolic and the greatest monumental spaces within the city.

Each selected example would be further examined under the creating of mental image and how far it enhances the legibility successfully.

4.2 - Streetscape -

4.2.1. - Bauddhloka Mawatha – Colombo

Bauddhaloka mawatha is running through the segment between Borella kannaththa to the Thummulla junction at Colombo seven area which is more urbanized and congested area in the city. Here Baudhaloka Mawatha can be identified as a one of the breathing space in the urban environment. Its feels, because of there apparent green structure. It visually and physically keeps comfotness along the street.



Fig: 134 Thummulla Junction with Buddha stature

Thummula Junction represents three road ways turn in to three ways from the middle of the nodal circle. When stand at the nodal point specially eye focus towards to the Bullers road which is represent the name Baudhaloka Mawatha. Interpretation of the name of the road gives a clue for the observer or for the visitor. From the entrance give another clue for the visitor that is sitting Buddha statue with its structure. It represents the Thummulla Junction. Nodal circle and elemental fence which is the space demarcation element of the Buddha statue make direction towards to the street. Thus Identity of the place, represent clearly from the entrance of the street. There spatial structure defines by those significant structures as told above and it makes visually attractiveness because of line of trees.



Fig: 135 Buddha statue in thummulla junction



Fig: 136 Bauddhloka Mawatha with line of trees in either side and enhance the spirituality quality. School children walk along the street very freely. Because street is very calm and quite and their minds make response to the surrounding environment and behave due to there creative landscape.

Man makes a mental image and gives the meaning for it. It can be right or wrong but in first impression he gets the idea of the place. When move towards through the street, it enunciates the gloomy environment. Because of symmetrical line of vertical vegetated walls that mature, heavy foliages with over head shady canopy trees sanding either side, along the street. Otherwise these Maturing tree trunks can be recognized as special feature of boundary demarcation in the streetscape.

Matured trunks of tree type and scale of it enhance Calm and quite environment and increase the livability quality. School children walk alone the street very freely. Because here street character emphasize very calm and quite environment and their minds make response to this surrounding creative landscape and behave responding to the space. In the other hand it gives message to slow down the public and vehicular moments. The calm and restful character can be experience along the streetscape. Therefore there vehicular movements automatically

getting to slow down and clearly represent, this is not a speedy way to move quickly. In this moment, we can see



Fig: 137 Replica of Aukana Buddha statue

landscape of trees how far make successful communication with user and observer.

Otherwise this landscape beautifies the street and enhances the welcome quality and as well as majestic feeling. Full of foliages of over head canopy trees enhance somewhat dignity of the pathway and still inviting and carry over to ahead. When go ahead the Street meets abuts number of buildings ahead such as institutional, religious and national significance spaces and buildings.



Fig: 138 Anglicant Cathedral with natural planting fence. It makes visual and physical connection between the building and observer.

There most significant buildings are Buddhist Religious buildings which are 'Sri Ekalankara dharma Mandiraya ', 'Samasthalanka dharma sabawa and Christian religious building which is Cathedral of Anglican Church. In the other hand there have national significance buildings such as Bandaranayke memorial international conference hall, Chinese embassy, national television and radio station. Therefore among these buildings most of spaces are represent the religious activities. So, street livens with trees and aggrandizes qualities of serenity and spirituality because to enhance the identity of the religious spaces. When entered to the street that picture of the first impression become true because of religious buildings.



Fig: 139 Sri ekalankara Dhamma Mandiraya



Fig: 140 Chiselled "Buddha statue of Samastha Lanka Dharma Sabawa.

These all buildings have their own individual identity make connection with there spatial structure according to user built up the clear image. Here Bandaranayke memorial international conference hall has different identity. It depends on their function, exterior view, structure etc. it emphasize the dignity and majestic quality. Expression of dignity emphasize related to that usage.



Pedestrian-friendly calm and quiet streetscape with Visually and physically pleasing, attractive and graceful landscape suddenly cut off the connectivity of tree lines towards for moment and shows the vast openness visible in front of the sight. Feel something special kind monument can be there in front of the sight. There is Bandaranayke memorial international conference hall. Sudden break of lines of trees create volume of space either side of the street and give clear view and image for the building to attract people. Psychologically openness of the space makes feeling like majestic as well as solemn quality. There identity, spatial structure with user and visually attractiveness quality make the meaning and after psychologically try to get the image of the space. In this case there landscape and openness has made easier communication or made dialog between observer and the space. Richness and grandness of the building and spatial structure with user strengthen from the landscape in correct manner.



Fig: 141 Bannaranayaka international memorial sudden break line of trees for moment and create vast openness with clear image of the building.

Along the Street create individual centers as the degree of enclosure and functional Changes. Thus rhythm of spatial progression and character of the streetscape in some what get into reduce. As an example, different identity and character of Chinese embassy which is next to Replica of Aukana Buddha statue break the quality, character of the street.



Fig: 142 Chinese embassy which is next to Replica of Aukana Buddha statue break the quality, character of the street.

But spiritual, calm, serenity and majestic quality and feeling of protection keep protectively to "Borralla Kannaththa junction. When closer to Kannaththa junction, it realized and symbolized from the one mature trunk with heavy foliages of large canopy tree. It is the identical point of the space and it defines the space in correct manner. Any one can recognize the space from long distance because of the symbolized tree.



Fig: 143 kannaththa Junction.
Large maturity single tree act as a symbol to emphasize the nodal point that is the junction



Fig: 144 this large canopy tree act as a symbolic element of the space. It enhances the importance of the space in the other and it shows the direction which way to go.

When we enter to the space we have sufficient ability to read the space, understand the image of the space. In that case large trees act as symbols in the street to identify the space that observer want. These are make vital contribution to make successful communication with the space and the observer.

Alan Tate (2005) point out "the landscape is the first human texts, read before the invention of other signs and symbols". This statement becomes true when experiencing the spaces.



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Fig: 145 View of D.S. Sennanayake Vidiya.

Kevin Lynch point out "Meaningful places are those have allow people to make strong connection between the place must communicate what kind of place it is a whether they are welcome. This is a place that would invite the eye and the ear to generate attention and participation".

'Bauddhaloka Mowatha' has identical dominant character within the surrounding urban city environment. Therefore there landscape came to aggrandize the character of the street. Physical structure/ enclosures, user and their behavior build the spatial structure give the idea to the observer. Due to observer's psychological perception, he visualizes an image in mind and makes communication with the streetscape and makes a powerful meaning. It's depending on the setting of the streetscape. In this moment Bauddhaloka mawatha landscape try to makes successful mental image and strengthen the legibility quality through the streetscape. Therefore Bauddhaloka Mawatha can be recognized as a successful communicable streetscape within the surrounding urban environment.



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4.2.2. - Nawam Mawatha and surrounding of Beira lake – Colombo

"The street is an urban space", which provides respite for the people who use it and make a link between man and the particular space. Man experiences the series of space in the street. The Beira Lake is one of the most distinctive landmark in the city of Colombo. Nawam Mawatha and particular surrounding area which runs along the banks of "Beira Lake" one of the series of characteristic spaces link each other. How to recognize it? First, it is through the physical dimensions: length, breath and height. It is a measuring or a quantitative experience. He captures the volume, the space contained within. In this act, he invariably relates himself with it, and the more important qualitative experience begins. Every such space becomes meaningful and enhances different characters in this process, in these man- space interactions. Man-Space interactions build the spatial structure of the place. Then observer grasps the encoded meanings through it.

Gangarama viharaya with "Seema malakaya" One of the famous and beautiful temple in urban city environment. It is beautifully decorated with stone carving, brass work, and other forms of Buddhist art. The temple is widely known for organizing the famous Nawam Perahera which is a religious procession. The small temple in the middle of Beira Lake, which is called Simamalaka, is also part of the Gangarama temple. Temple "Seemamalakaya" acts as one of elegant landmark and symbol in the city. It shows the directions clearly. It is the place and venue for the annual Nawam perahara which is a religious possession happening along the street in particular period.

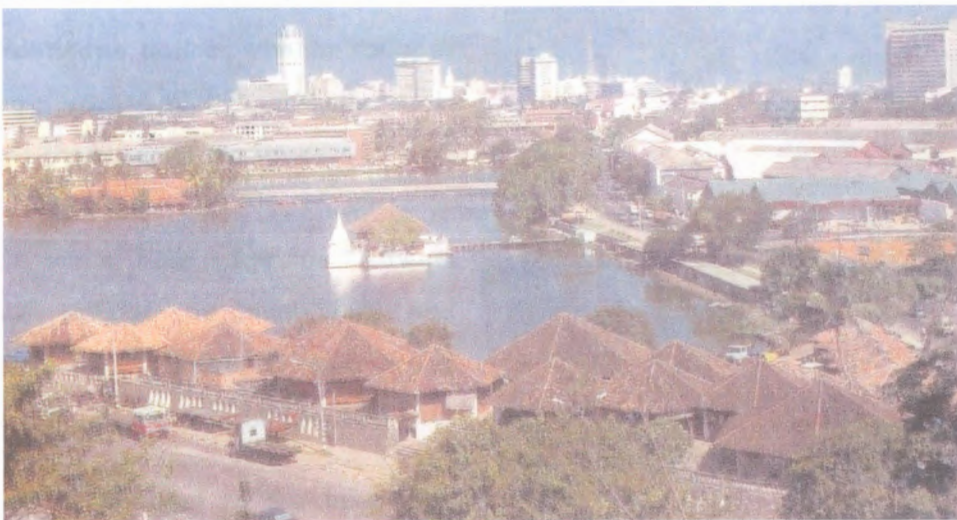


Fig: 146 The Beira Lake is one of the most distinctive landmark in the urban city of Colombo.

In this manner the place is amalgamated with the religious significance throughout the other areas. Perahara Mawatha makes vital contribution to activities happening due to religious activities. Firstly man grasps the idea from particular name of the street. It emphasizes the main idea of the street.

There man made structures different than others. It emphasizes the different identity than commercialized area. User behavior is different than the other spaces. It consists with significant particular public activities and religious celebrations as shown as above. Therefore this space garnish with other elements emphasizing character of the space. Historical importance, clearly distinguish from the elements. Decorative Rubble wall, small structures with tiled roofs demarcate the street edge. Single tree symbolize the turning point of the way. Streetscape defines with the foliage of canopy trees and enhances the main significant character of the space

The 'man made built edge' of "Nawam mawatha" defined by multi story and many high rises related to commercial, financial and office buildings and has been built responding to the lake. That



Fig: 147 Peraha Mawatha with full of foliage of canopy trees. Around the lake well commercialized and it enhance through the quantity of vehicular moment in the road. Activity at day time.



Fig: 148 Single tree symbolize the turning point of the way.



Fig: 149 Streetscape defines with the foliage of canopy trees and enhances the main significant character of the space

commercial, financial, office related buildings can be named as Colombo Chamber of Commerce, Amro Bank, National Development Bank, Sampath Bank, DHPL, Lanka trading, millennium park housing unit Co.Ltd, Union Assurance city office etc. These buildings do not subscribe the significance of the religious activity. It demonstrates the socio cultural significance within the area. Therefore there can identified separate characters acting in the same area. Around the whole lake emphasize man made structures with there particular activities.



Fig: 150 View of the Nawam Mawatha from Semamalakaya

Physical structure and social structure get different than particular religious activates and there structures. Exclusive buildings and there individual separate identities and Activities along the waterfront were completely made the spatial structure of the place. Prevailing physical setting foster a sense of well being and totally encourages and connection with the lake in terms of the physical, social and visual employment of the Water- Space.



Fig: 151 High rise building, Semamalakaya with landscape. It makes demarcation line between commercial activity and religious activity.

The quality of water is one of the directly relevant as a landscape element. "Water-Space" becomes a frame a meaningful experience as an impressive urban space and strengthens the spatial structure around the lake. Considering the overall "Water-Space", it is a spatial element that makes physical compatible and livability of the city environment. Vast openness of "water space" as a landscape feature, it visually and

physically makes legible the surrounding. It encourages for direct connection with physical structures make dialog between them. It functions as a barrier in articulation of space without disturbing visual continuity. It represents the spiritual condition or state of mind with the emphasis on self expression and subjectively perceived freedom. Thus making the participant to move rather than stop and enjoy the scenery.

Elegant water body and the street boundary demarcated by attractive, aesthetically pleasing line of trees and ground paving, different elements and features and distinct levels of Steps. Those features gains the required relax and intimate quality to the observer and for the user. In the other hand they create and

maintain the different discipline and characters of the particular space. It communicates with man clearly.

There single line of trees with full of foliages directing the movement of vehicles towards it but automatically slow down the speed of vehicles. It happens because of type and scale of the tree line. It clearly enhances calmness and relaxing mood. Generated observer's emotions, feelings



Fig: 152 small elemental features, disciplinary paving enhance the exclusivity, richness of the place.

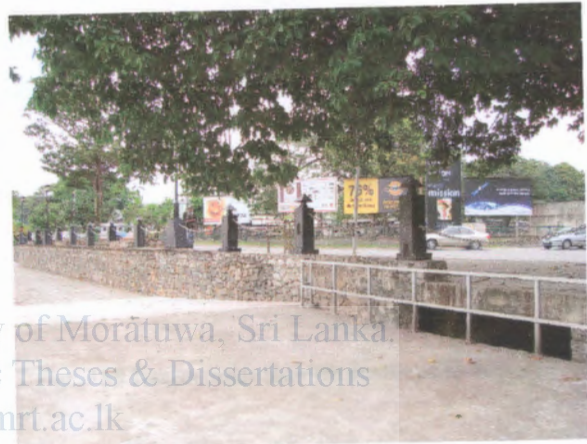


Fig: 153 small elemental features, disciplinary paving and level change make a clear view of the image



Fig: 154 through the tree landscape enhance the gloominess, calmness and make pedestrian friendly environment

communicate with space and make reaction for the given message from the space. It enhances the spirituality, serenity pious and reverential quality of the space.

In the other hand small elemental features, disciplinary paving enhance the exclusivity, richness of the place. Observer gets an idea from these features clearly. These are try to create legible, communicable environment which easy to identify. Through the tree landscape enhance the aesthetically pleasing environment with gloominess, calmness and make pedestrian friendly environment.

Nawam Mawatha consider as a one of the urban space which runs along the banks of "Beira Lake" with having panoramic view towards to the element of "Seema malakaya" and "Beira lake- water body" with commercialized environment as discussed as above paragraph. Different kind of commercial, financial exclusive buildings enrich the place. There the special arrangements of the buildings contribute to enclosure of the place and the participant to form territorial demarcations. The scale of the street continuous throughout, but the different scales of built elements cause different senses of enclosure along the street. Either side the constitution of the built fabric is very rich and contrasting due to the closeness of the built edge to the street.



Fig: 155 Turning circles show the direction way to go.

Single straight line of palm trees demarcates the edge of the commercial space and emphasizes the discipline of the whole streetscape and shape and form the commercial space. Type of landscape shows the exclusiveness of the particular space. There identities of buildings emphasize from the scale, height,



Fig: 156 straight line of palm trees demarcates the edge of the commercial space and emphasizes the discipline of the whole streetscape

massiveness, materials etc, of the particular building. Social behavior can see from the specialized user category. That those who are hanging around the place, they come for their job or for business matters. Therefore observer get clear image of the place. Thus his image maintains by the special landscape alone the street. Now can say, specialty of the streetscape strengthen from the landscape and enhance the legibility successfully.

In this manner can see surround of "Beira Lake" make continuation of series of urban spaces and define the streetscape with different characters and it strengthen from the role of landscape and enhance the legibility of the streetscape. Aggrandize correct and clear image and readable, communicable streetscape within the urban context.



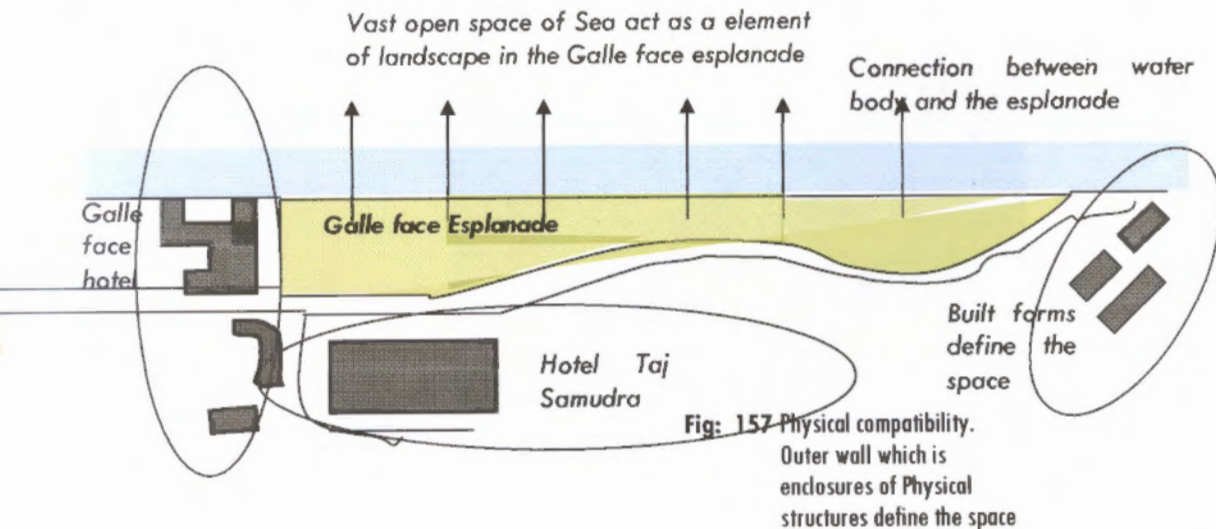
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4.3 - urban open space

4.3.1. - Galle face green - Colombo

Galle face green is a vast open space which is enclosed by different physical structures. Galle face green was originally cleared by the Dutch to give the cannons of Fort a clear line of fire. Galle face green has a relatively long history. In the early days of British occupation, Galle Face served as the principal exercising ground of the garrison. It was actually only in 1828 that Galle Face came into prominence as an esplanade, and a rendezvous for the general public of Colombo. That happened due to the fact that Sir Edward Barnes, the Governor of the time, was interested in horse-racing, and found the open space on the southern approach to the Fort a very suitable venue for a racecourse. The ground on the Galle Face was accordingly leveled to some extent, the mounds built by termites were razed to the ground and the holes made by the land-crabs filled up. Galle Face retained its character as the racecourse of Colombo, and its chief recreation ground, until the end of the nineteenth century.

Galle face green is wonderful and grate rhythmic composition of natural and elegant man made elements. Vast open Space boundary define by the man made physical demarcations such as immediately south of the Fort, the stretch of land between the Galle Face Hptel, the Ceylon Continental Hotel and old parliament building. Eastern edge is defined by the other significant built structures which are ministry of defense, the buildings of the army camp, Taj samudra hotel. Western edge is demarcated by the vast expanse of the open space that is the sea.



The esplanade bordering by the sea and form a strong edge for it and strengthen the connection between them. There physical attraction mainly based on the vast openness of the esplanade. It makes vital contribution to the physical structure. Vastness and boundless linear setting of the space automatically unloose and set free to the endless sea or to the horizon. Space increases and aggrandizes the visual area and encourages aggrandizing the scenic beauty and as well as encourage increasing the attractiveness of the sea. Setting of the space strengthens the outer ring which is building enclosure very well.

Larger dimension of voluminous that length, breath and height of the space and there physically boundlessness aggrandize the physical attractiveness very well. Individual Identity and character of the physical structure clearly distinguishes by the vast openness of Galle face. There exclusiveness can see clearly with out any disturbance. Observer can easily make communication with surrounding. On the other hand vast openness of the space functions as a breathing space for congested city and as well as it makes a good appearance for the city.



Fig: 158 One of spatial demarcation object can see at a distance. Vast volume of the space with different social behaviors



Fig: 159 linear setting of the space full of social activities in the elegant vast open space. It enriches the physical structure visible in backaround

Social group is the most important character in the space that animates and makes alive the space. In the other hand Social behavior with different activities of the space enriches the background enclosure very well. The activities within the space, changes with its varying dynamism, during different times of the day. The very diversity set within an urban frame work, and unified with its persuasive, romantic and naturalistic themes, creates an ideal setting for public activities and behaviors. Many urban dwellers gather there to get away from their usual routine and to interact with society. Different social classes being in their different activities such as certain social group engaging in leisure activities as jogging, exercising. Group families enjoy their selves with chatting, enjoying the scenery as well as children playing and many urban dwellers use the place to relax.

People who come to Galle face, that they come for the main purpose of absorbing nature's beauty. Therefore open space grater interaction with there landscape features and make a pleasant environment. Natural changes are the main landscape and absence of heavy landscape encourage to more people to hang around freely. Water (sea), building seats, lights, steps and other features and elements form the space in correct manner. These all features enhance the legibility of the space and make a legible environment in correct manner. Changes background of the nature, people's movements and their colorful clothing, different sounds etc, give meaning for the space and enhance the character of the space.



Fig: 160 different social groups and different activities. Urban dwellers gather to relax besides the water enjoy the scenic view of the sea

The water being mainly a visual object and it play a greatest role in the space. They range from quiet, repose, depth, tension, solidity and reflectivity. The dramatic view of the sea, people experienced at a higher level of elevation. Sea makes a limitless and endless view. It increases and aggrandized the vast voluminous of the space furthermore. Esplanade bordering the sea and it act as livable arena with dominant actors and actresses with background features, elements, lighting levels and sounds. Changing colors and hues of the sky elevates the quality of the space. That kind of natural Changes which are happening around the background that light of the sky and beauty of the sun set giving a sense of excitement to the space too. In this manner Nature functions to build aesthetically pleasing environment. The cool, vigorous and fresh sea breeze and the sound of the waves splashing make vital contribution to make alive the space. Simonds John Ormsbee (1983) point out "Character and livability of a city one largely determined by the nature and arrangement of its open spaces"



Fig: 161 Esplanade act as arena with dominant actors, actresses with background features, elements, lighting levels and sounds. Steps and different levels



Fig: 162 Night mood of the Galle face
Lighting enriches the space.



Fig: 163 Straight line of palm trees enhances the discipline of the place and further enhances the degree of exclusiveness in the place

In the night, qualities of glittering lights evoke emotional improvement with the restful environmental quality and people enjoy it well. In the other hand it enriches whole area.

Simple landscape, that grass meadow and Straight line of palm trees make grater contribution to successful the whole environment meaningfully. It enhances the well discipline of the place and further enhances the degree of exclusiveness in the place.

Otherwise it acts as a demarcation line of the traffic root and helps to explain the clear direction to the entrance ways and also they make a welcome for the visitor. Therefore vast openness and visual attractiveness of the simple landscape, encourage to people to come and enjoy the space.



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Fig: 164 Exclusivity of the place emphasize from the simple landscape.
Rubble wall barrier with level drop demarcate the space.

Building seats directly oriented towards the sea invite the participant to admire the natural philosophical scenery. Well sited building seats which are welcoming and provide interesting visual outlooks and meeting places. Stone steps, level drops as same as well. They form the space in correct manner.

Thus through vast openness and landscape enrich the readable quality and observer identifies the outer ring of the space in correct manner. In the other hand it encourages to bring a variation of society to socialize in the same context and free behavior with in the space. Thus role of landscape enhance the legibility of the urban open space in correct manner as well as it make vital contribution to emphasize physical structure which is enclosure of the open space. Thus it encourages the observer to direct connection with physical structure and makes a dialog between them.



Fig: 165 Colorful elemental panels define the edge.

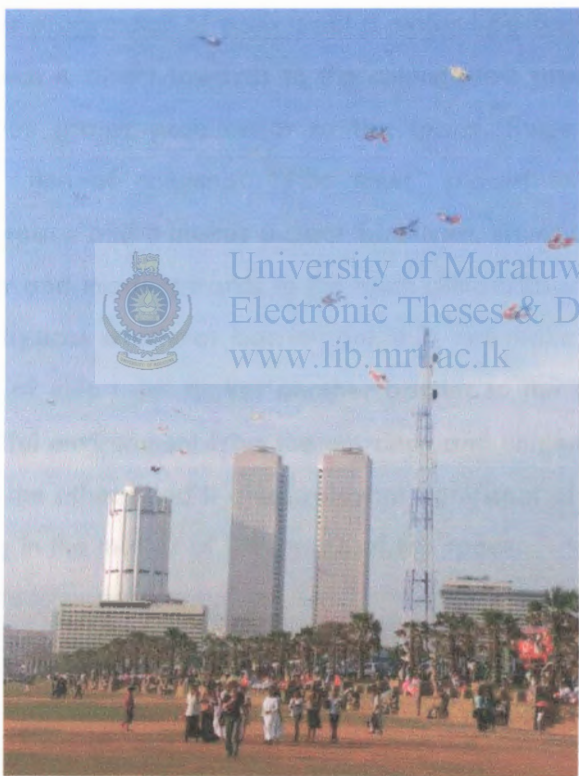


Fig: 166 spatial structure of the place.
Different Social behaviors, activities and space defining physical structure at the distance.

4.4. - Monumental space

4.4.1. - The independence square – Colombo

The Independence Hall was erected to commemorate the liberation of Sri Lanka from British rule on 4th February 1948. That the signing of the independence from Great Britain took place. This is the place where celebrations and ceremonies take place every year due to independence. Especially this building was designed as a public place for the declaration of independence in 1948. It located in the breathing space and heart of the Colombo's pleasant green area and it away from the busy environment of business district. Mainly this space is act as a monumental space within the urban environment.

The movement progression of path is not a major approachable pathway to the city. It is a Path way which is direct towards to the colonnaded structural hall of independence and pathway gives grater prominence to the space. Same type, same scale, balance of Symmetrical line of columnar "Villo trees" placed in regular intervals, garnish and beautify the space and it makes a clear focalized, visual and physical axis, strengthen it in grate manner and leads towards to the main climax. Backdrop of the columnar treescape, there is a physical structural barrier but it is not make a disturbance to the pathway because line of villa trees makes another barrier to the space and attract the people. It makes peaceful environment from the entrance and emphasizes the vital importance of the place and in the other hand it gives relevant significant of the space. It gives the clue from the beginning in the matter of the image of the space.



Fig: 167 Same type, same scale of line of Villo trees placed in equal distance and makes a clear focalized visual and physical axis towards to the monumental space.

Therefore can be recognize the shape of columnar Villo trees try to symbolize something monumentality significant of the space. When come through experiencing of the path way, eye focus to the center. That is statue of the late first Prime Minister Mr.D.S.sennanayaka. It aggrandized the importance of the space further. Every visual picture that catch by the eye, observer psychologically try to analyze the meaning of the space well.



Fig: 168 independence square with Prime Minister Mr. D.S.Sennanayaka.



Fig: 169 colonnade structure have risen on the Stone chiseled podium

Stone chiseled carvings with paintings of elegant architectural colonnade structure have risen on the Stone chiseled elevated podium with structural figure of lions on surround; where the center of the symmetrical open space with landscape, emphasize the monumentality significant quality further. It attracts the observer, drag and drop to the space. Symmetrical arrangement with those structural features that shown as above, symbolizes and emphasizes the independent, prosperity, safer, protection and majestic quality that predicate from the space.

Central focus of the space elaborate with distinct shape of water pond and in the middle is the Prime Minister Mr.D.S.sennanayaka's stature. This quality can be identifying from the public squares at foreign examples. Necessity of these features is to make easier for observer to read the space in correct manner and grasp the idea and meaning which predicate from the space. It make feels invitation for the observer. Therefore these symbolical ornamental Structural elements of landscape can be seen that make powerful contribution to enhance the legibility of the space in correct manner.



Fig: 170 Central focalized feature that water pond, statue and figures of lions in four directions.

Open paved space around the pond is dynamic and makes vital contribution to the space and group of people widely used this due to presence of water. Otherwise water adds ceremonial quality to the place. Water in this nature could stimulate different moods in people with its power to change the character of the space.



Fig: 171 Central focalized feature that water pond, statue and figures of lions in four directions and Rhythmic form of small scale plantation small scale plantation

Hard element of steps makes levels and creates sitting places people who are hang around the space in correct manner. Space territory demarcates from the vertical maturing trees along the periphery and they provide shade and calmness for the space and make peaceful environment and embedded with greenery enhance the aesthetically pleasing, attractive environment. Space surround the structure embedded with rhythmic form of small scale plantation beautify the space and enhance the significance of the structure. Place animate and alive due to social group who come for see the memorial of independence. It is the most important feature to build the spatial structure and for make the meaningful image of the space.

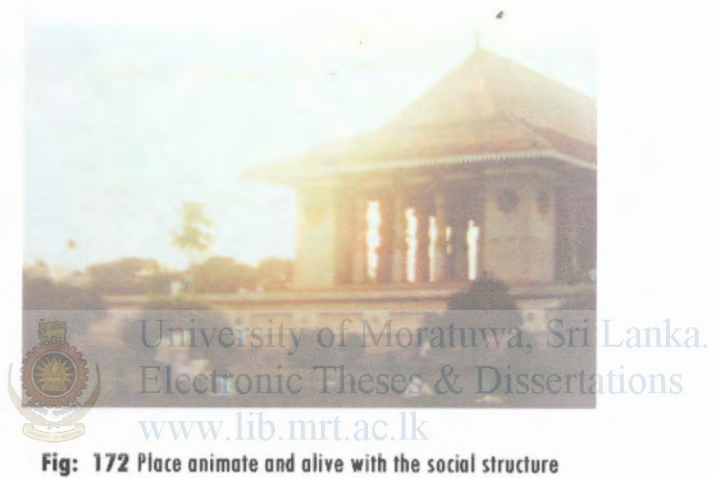


Fig: 172 Place animate and alive with the social structure

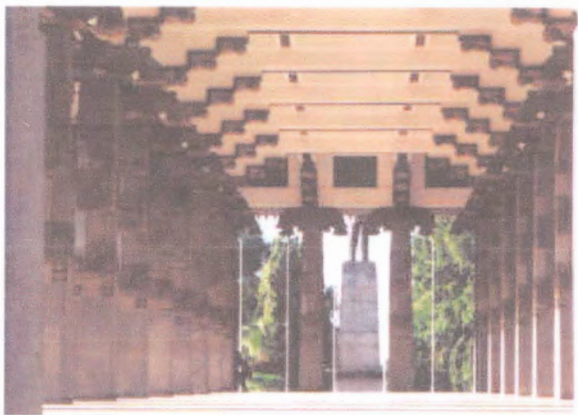


Fig: 173 Perspective through the colonnaded structure

Urban spaces are dense with memories and become integral presences the organs of that body which is the city. Independence square premises enhance as a one of the urban space in the urban city environment and can see that the space within the built environment has been successfully maintained and safeguard by the surround rhythmic combination of landscape. Finally we can consider about landscape which are greenery, paving, water and ornamental structural elements act as the major elements that their contribution for the space and can be see how far it make contribution to enhance the readability quality that legibility of the space.



Fig: 174 Arial view of independence square, surrounding physical setting.

4.4.2. - New parliament premises – Sri Jayawardanapura, Kotte

The impressive and prepossessing symbolic monumental space that the new parliament building at “Sri Jayawardhanapura, Kotte”. It has inserted in the middle of the marshy around a small island that around by “Diyawanna oya”, and intended to serve as the focal point of a city park, and the building itself identified as a National significant symbolical, monumental building within the complacent monometallic natural setting and it is one of the dominating landmark in the city. It elaborates point of legibility successfully. It is the only single physical object in there natural setting. Isolation of the object within the natural setting, it gives a clue for the existence importance of the space. That the complex or the fortress-like air it has assumed.



Fig: 175 Elegant picture, that form and space and spatial structure of the main object, that the parliamentary space

The high way with vehicular movement between the main object that enchant and the vast openness of esplanade, creates a definite break in the experience of the dominant enchanted object and the esplanade. Dominant space when experience from the esplanade, parliamentary space creates a powerful elegant picture, in observers mind.

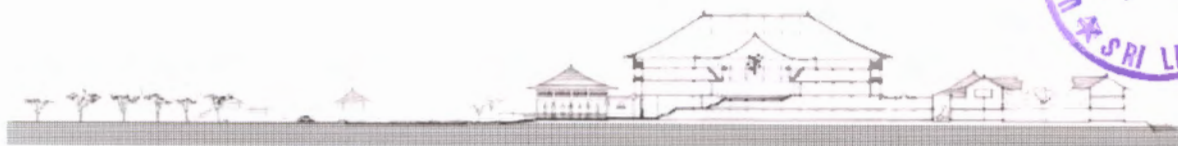


Fig: 176 Section through the elegant space. View from the vast openness of esplanade

There vast openness of esplanade that well scatted turfed green land with well planted horizontally spreading canopy trees at regular distance, functions and gives opportunity to perceive, to experience the direction of the parliament well. Vast natural background supports very well, to contrast and enhance the built presence of clear rhythmic form of monumentality space. The setting of public esplanade likes a city park, and there those heavy foliages with canopy trees figure out the edge of enclosure to the space. As well as scale and proportion of these canopy trees make people attraction to the space very well. In that manner people identified this space as a wonderful relaxing and public gathering space through the calmness, state of comfort.



Fig: 177 parliament view through the vast openness of esplanade. Social relationship and behavior of the space.

Balancing, symmetrical Linear Line of same scale and proportion of planted trees at regular intervals makes an attractive entrance, leads towards and show clear, peaceful, disiplinary direction to the main object of allure and enhances and aggrandizes the monumentality felling well. As well as that simplicity of surrounding disciplinary landscapes give the identity to the space in correct manner. As well as make the feeling as guarded safely. Either side of the pathways defined by these vertical landscapes in correct manner That landscape with green lawn up lift, rises the appearance of configuration with orientation, informal asymmetric plan form and optimum scale of the built form contributes to symbolize its presence meaning powerful presence eminence of dignity, self-governing, solemn, magnificent character and majestic through the experience and up lift in higher degree. That garnish of trees on either side make legible environment which can experience and communicate with observer. All

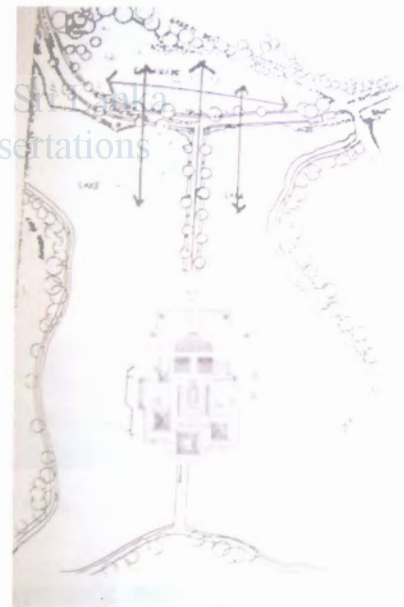


Fig: 178 form of the monumental space.

qualities that enhancing from landscape features, depend on mans psychological perception and emotions with visual attractiveness.

In natural setting that elegant large dimension of monumental body of water act as an enclosure and it is the greatest character helps to publicans to contemplate image of the parliament and the surround well. Stillness, calm and quietness makes vast contribution to enhance that dignity, privilege and majestic, glorious character to the space as well as enhance some kind of protection, and it symbolically gives an image of purity and chasteness, and in the other hand it subscribs to calm down and resuscitate the users mind. Overall view symbolized peaceful environment. Its configuration of parliament sighted as floating on the stillness of water setting. There elegant sight of the view of the Parliament shows and functions irrepressible, overpowering quality. Thus for there enhancing Qualities enhance the legibility that can understand and make clear identification to the monumental presence of the Parliament and monumental presence of surround space.

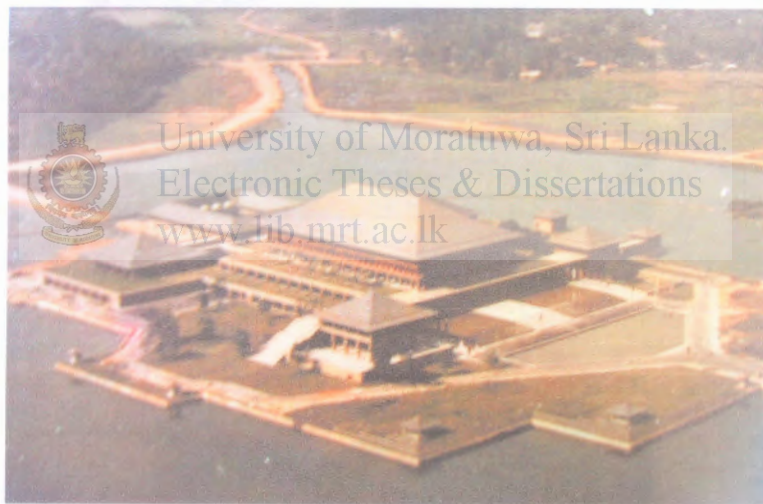


Fig: 179 Rhythm and scale of the built form in monumental space.

There elegant natural setting makes a backdrop to the symbolic monumental physical structure, and form the spatial structure of the setting, and gives strong symbolical meaning for the space due to perceiver's analyzed mental perception. That symbolic meaningful perceptual image enhances the communicatively that legibility of the space. Therefore there natural setting and creative landscape structure play a vital role to enhance and strengthen the monumental quality, and help to emphasize the vital importance of the space with the other urban environment setting.



Fig: 180 There vast openness of esplanade that well
scatted turfed green land with social behaviors.



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Fig: 181 Impression of water, and green environment



Fig: 182 within the monumental space. Level changes
shown in using correct landscape method with
well proportionate plantation.



Fig: 183 Gate view of the national symbolical monumental space emphasizing there identity with there elegant natural setting, contrasting from the urban city environment

Conclusion

Legible environment give more clarity or clearness to the space and for the buildings thus leading and guiding people with in the urban setting in correct manner. If there is lack of legibility or communicable facilities, man become a destitute in the urban environment with out any assistance and be alone with confusing and it causes to visual unpleasantness and chaotic experience. That therefore mans needs and he desiderates to find a meaningful relationship with the space in aspects of mans being in the land. They try to experience the space and try to get an idea of the space with different feelings.

In urban situation with haphazard development man can't experience the space as well as to get correct idea of the space. Therefore legibility is the most wanted quality to strengthen the relationship between man and the urban space within the urban environment. If observer can get an idea from the space at quick in right time it may success. Thus enhance and aggrandized legibility in the urban space, it may affect automatically to success the whole urban environment. In the other hand it may affect to enhance the physical compatibility as well.

In that case landscape is itself embedded within the space and assists to make better communication in different urban spaces and create easy identification quality in the space and try to gives deeper meanings to the existing urban environment. Therefore natural and assembled man-made Landscape begins to make space success within the urban setting. Through the landscape can improve successful living environment as well in correct manner. There'll be it make success to create good city environment.

According to Bently 1985 "legibility is the quality, which makes a space graspable." To be able to recognize and remember the surrounding or the space. It should produce a strong mental image either by its function and pattern and rhythm. Such image or expressive qualities should be clearly readable, communication expresses through the landscape and create meaningful, emotional, graspable urban space. Therefore can be identified the landscape and their functions is one of the most important part of the urban environment to create a good city environment.

Alan Tate point out "Landscape architecture emphasizes the livability quality of life in our urban areas". Livability quality' can identify from the legibility of the space and communication with it. Landscape architecture today is increasingly perceived as a collaborative effort, along with the architectural component towards the design of total integrated space. The landscape denotes the interaction between people and place. It is the space through which people articulate collective or individual identities. The landscape is not only a result of particular ideologies, but it sustains them: It communicates.

Schitz,christian (1971) "You cannot divorce man and space. Space is neither an external object, nor an internal experience. We do not have man and space besides."

Due to concentrate of the landscape, it assists to give idea of the space to experience it and explain the character of the place and the space in correct manner. Mans need to find the meaningful relationship with the space. So spaces must have ambience for the readable quality. It raises the character of the space and makes accurate and direct relationship with the space. In other hand built urban setting and landscape, both have to be working each other together as a singular process.

This study is an effort to understand about urban space and clarify the concept and direct idea of legibility and its application in urban space and found how far it strengthens through the landscape and their principles and create meaningful urban spaces. Colombo is the most urban city environment in Sri Lanka. So it must want clear identifications, clear communicable things within the city. In that case, clearly distinguish some peaceable and attractive urban spaces with its landscape within the city make vital contribution to strengthen the city environment well. Can see clearly that urban space creates more successful livable and legible environment due to there creative landscape. Therefore legible Landscape makes human attachment in space and giving meaning to space and enhance legibility of the urban space. Therefore can say, city needs physical compatibility as well as more creative landscape to enhance legibility in the urban space well and through this to create livable good city that man like to live and experience well.

Specially there have to be 'balance of professional contribution' that 'landscape architecture and urban planning and design' to enhance the legibility in urban space to build livable good city with encouraging of relationship between man and the space and

urban environment as whole. It is very essential to apply in correct manner in Sri Lanka. Most of Foreign countries, there can be seen 'balance of professional contribution' in theoretical basis applied in urban spaces and try to enhance legibility very well, and urban city environment as whole. They more concerned about their environment and the user, and make pleasant, functional environment that man can easily use, easily experience and successfully well manageable. There most important thing that can be seen is communicability, legibility that can easily understandable quality in the space very well. Therefore due to our country, there should be balance and relationship in particular professions that, landscape, urban planning and design. Therefore can be a build good urban space and city environment as whole. Selected case studies within Colombo city, functions and Worked well, but have to maintain this quality city as a whole in correct manner.



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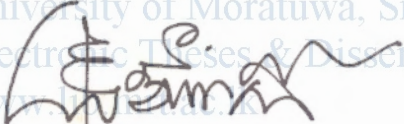
I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this university or to any other institution for a degree, diploma or other qualification.

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